Lightwave Logic, Inc.
Form 10-Q
August 14, 2013

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2013

OR

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

For the transition period from _____________to _____________

Commission File Number 0-52567

Lightwave Logic, Inc.
(Exact name of registrant as specified in its charter)

Nevada (State or other jurisdiction of Incorporation or Organization)	82-049-7368 (I.R.S. Employer Identification No.)
111 Ruthar Drive Newark, DE (Address of principal executive offices)	19711 (Zip Code)

(302) 356-2717
(Registrant’s telephone number, including area code)

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 x No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Date File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).Yes x No ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act (Check one):

Large accelerated filer	¨	Accelerated filer	¨
Non-accelerated filer	¨	Smaller reporting company	x

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

The number of shares of the registrant's Common Stock outstanding as of August 14, 2013 was 52,046,797.

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PART I – FINANCIAL INFORMATION

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Item 1 Financial Information

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)

FINANCIAL STATEMENTS

JUNE 30, 2013

(UNAUDITED)

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)

CONTENTS

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
BALANCE SHEETS

		June 30, 2013 (Unaudited)		December 31, 2012 (Audited)
ASSETS				
CURRENT ASSETS				
Cash and cash equivalents	$	3,259,183	$	2,936,879
Prepaid expenses		166,768		89,975
		3,425,951		3,026,854
PROPERTY AND EQUIPMENT - NET		348,614		300,994
OTHER ASSETS				
Intangible assets - net		507,588		488,526
TOTAL ASSETS	$	4,282,153	$	3,816,374
LIABILITIES AND STOCKHOLDERS' EQUITY				
CURRENT LIABILITIES				
Accounts payable	$	115,099	$	96,384
Accounts payable and accrued expenses- related parties		85,349		55,606
Accrued expenses		10,055		3,338
TOTAL LIABILITIES		210,503		155,328
STOCKHOLDERS' EQUITY				
Preferred stock, $0.001 par value, 1,000,000 authorized No shares issued or outstanding		-		-
Common stock $0.001 par value, 100,000,000 authorized 52,046,797 and 50,160,758 issued and outstanding at June 30, 2013 and December 31, 2012		52,047		50,161
Additional paid-in-capital		34,523,103		32,042,751
Accumulated deficit		(15,827)		(15,827)
Deficit accumulated during development stage		(30,487,673)		(28,416,039)
TOTAL STOCKHOLDERS' EQUITY		4,071,650		3,661,046
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$	4,282,153	$	3,816,374

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
STATEMENTS OF OPERATIONS FOR THE THREE MONTHS AND SIX MONTHS ENDING JUNE 30, 2013 AND 2012 AND FOR THE PERIOD
JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO JUNE 30, 2013
(UNAUDITED)

	Cumulative Since Inception	For the Three Months Ending June 30, 2013	For the Three Months Ending June 30, 2012	For the Six Months Ending June 30, 2013	For the Six Months Ending June 30, 2012
NET SALES	$3,200	$ -	$ -	$ -	$ -
COST AND EXPENSE					
Research and development	14,140,686	531,116	455,253	986,498	927,662
General and administrative	15,802,571	433,386	553,860	881,004	851,050
	29,943,257	964,502	1,009,113	1,867,502	1,778,712
LOSS FROM OPERATIONS	(29,940,057)	(964,502)	(1,009,113)	(1,867,502)	(1,778,712)
OTHER INCOME (EXPENSE)					
Interest income	31,187	62	124	141	322
Dividend income	1,551	-	-	-	-
Realized gain on investment	3,911	-	-	-	-
Realized gain on disposal of assets	637	-	-	-	-
Litigation settlement	(47,500)				
Commitment fee and interest expense	(537,402)	(184,723)	(18,615)	(204,273)	(120,560)
NET LOSS	$(30,487,673)	$ (1,149,163)	$ (1,027,604)	$ (2,071,634)	$ (1,898,950)
Basic and Diluted Loss per Share		$ (0.02)	$ (0.02)	$ (0.04)	$ (0.04)
Basic and Diluted Weighted Average Number of Shares		51,725,639	49,055,806	51,097,111	47,893,907

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
STATEMENT OF STOCKHOLDERS' EQUITY
FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO
JUNE 30, 2013
(UNAUDITED)

	Number of Shares	Common Stock	Paid-in Capital	Subscription Receivable/ Receivable for Issuance of Common Stock	Deferred Charges	Unrealized Loss on Securities	Accumulated Deficit	Deficit Accumulated During Development Stage	Total
ENDING BALANCE AT DECEMBER 31, 2003	100	$1	$-	$-	$-	$-	$(15,827)	$-	$(15,826
Retroactive recapitalization upon reverse acquisition	706,973	706	(706)	-	-	-	-	-	-
BALANCE AT JANUARY 1, 2004	707,073	707	(706)	-	-	-	(15,827)	-	(15,826
Common stock issued to founders	13,292,927	13,293	(13,293)	-	-	-	-	-	-
Common stock issued for future services in July 2004 at $0.16/share	1,600,000	1,600	254,400	-	-	-	-	-	256,000
Common stock issued at merger	2,000,000	2,000	(2,000)	-	-	-	-	-	-
Common stock issued for future services in August 2004 at $0.12/share	637,500	638	74,362	-	-	-	-	-	75,000
Conversion of note payable in December 2004 at $0.16/share	187,500	187	29,813	-	-	-	-	-	30,000

Net loss for the year ended December 31, 2004	-	-	-	-	-	-	-	(722,146)	(722,146
BALANCE AT DECEMBER 31, 2004	18,425,000	18,425	342,576	-	-	-	(15,827)	(722,146)	(376,972
Common stock issued in private placement in April 2005 at $0.25/share	4,000,000	4,000	996,000	-	-	-	-	-	1,000,000
Conversion of notes payable in May 2005 at $0.16/share	3,118,750	3,119	495,881	-	-	-	-	-	499,000
Subscription receivable	-	-	-	(6,500)	-	-	-	-	(6,500
Common stock issued for future services in August 2005, valued at $2.79/share	210,000	210	585,290	-	-	-	-	-	585,500
Common stock issued for future services in August 2005, valued at $2.92/share	200,000	200	583,800	-	-	-	-	-	584,000
Warrants issued for services in May 2005, vested during 2005, valued at $1.13/share	-	-	37,000	-	-	-	-	-	37,000
Warrants issued for services in September 2005, vested during 2005, valued at $1.45/share	-	-	24,200	-	-	-	-	-	24,200
Warrants issued for services in October 2005, vested during 2005, valued at	-	-	15,900	-	-	-	-	-	15,900

$0.53/share									
Warrants issued for future services in December 2005, vested during 2005, valued at $1.45/share	-	-	435,060	-	-	-	-	-	435,060
Deferred charges for common stock issued for future services in August 2005, valued at $2.92/share	-	-	-	-	(584,000)	-	-	-	(584,000
Amortization of deferred charges	-	-	-	-	265,455	-	-	-	265,455
Exercise of warrants in December 2005 at $0.25/share	300,000	300	74,700	-	-	-	-	-	75,000
Net loss for the year ended December 31, 2005	-	-	-	-	-	-	-	(1,721,765)	(1,721,765
BALANCE AT DECEMBER 31, 2005	26,253,750	26,254	3,590,407	(6,500)	(318,545)	-	(15,827)	(2,443,911)	831,878
Common stock issued in private placement during 2006 at $0.50/share	850,000	850	424,150	-	-	-	-	-	425,000
Common stock issued for future services in February 2006, valued at $0.90/share	300,000	300	269,700	-	-	-	-	-	270,000
Common stock issued for future services in May 2006, valued at $1.55/share	400,000	400	619,600	-	-	-	-	-	620,000

Common stock issued for future services in June 2006, valued at $1.45/share	25,000	25	36,225	-	-	-	-	-	36,250
Common stock issued for future services in November 2006, valued at $0.49/share	60,000	60	29,340	-	-	-	-	-	29,400
Warrants issued for services in September 2005, vested during 2006, valued at $1.45/share	-	-	66,500	-	-	-	-	-	66,500
Warrants issued for future services in June 2006, vested during 2006, valued at $1.55/share	-	-	465,996	-	-	-	-	-	465,996
Options issued for services in February 2006, vested during 2006, valued at $1.01/share	-	-	428,888	-	-	-	-	-	428,888
Contributed capital related to accrued interest	-	-	35,624	-	-	-	-	-	35,624
Subscription receivable	-	-	-	6,500	-	-	-	-	6,500
Amortization of deferred charges	-	-	-	-	318,545	-	-	-	318,545
Unrealzed gain (loss) on securities	-	-	-	-	-	(26,000)	-	-	(26,000
Net loss for the year ending December 31, 2006	-	-	-	-	-		-	(2,933,809)	(2,933,809
BALANCE AT DECEMBER	27,888,750	27,889	$5,966,430	$-	$-	$(26,000)	$(15,827)	$(5,377,720)	$574,772

31, 2006

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
STATEMENT OF STOCKHOLDERS' EQUITY
FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO
JUNE 30, 2013 (CONTINUED)
(UNAUDITED)

	Number of Shares	Common Stock	Paid-in Capital	Subscription Receivable/ Receivable for Issuance of Common Stock	Deferred Charges	Unrealized Loss on Securities	Accumulated Deficit	Deficit Accumulated During Development Stage	Total
BALANCE AT DECEMBER 31, 2006	27,888,750	27,889	$5,966,430	$-	$-	$(26,000)	$(15,827)	$(5,377,720)	$574,77
Common stock issued in private placement during 2007 at $0.50/share	2,482,000	2,482	1,238,518	-	-	-	-	-	1,241,0
Common stock issued in private placement during 2007 at $0.60/share	1,767,540	1,768	1,058,756	-	-	-	-	-	1,060,5
Common stock subscription rescinded during 2007 at $0.50/share	(400,000)	(400)	(199,600)	-	-	-	-	-	(200,00
Common stock issued for future services in February 2007, valued at $0.70/share	151,785	152	106,098	-	-	-	-	-	106,25
Common stock issued for future services in March 2007, valued at $0.58/share	1,000,000	1,000	579,000	-	-	-	-	-	580,00
	100,000	100	34,900	-	-	-	-	-	35,000

Common stock issued for services and settlement for accounts payable in April 2007, valued at $0.35/share									
Common stock issued for services in October 2007, valued at $0.68/share	150,000	150	101,850	-	-	-	-	-	102,00
Common stock issued for services in October 2007, valued at $0.90/share	150,000	150	134,850	-	-	-	-	-	135,00
Common stock issued for services in November 2007, valued at $0.72/share	400,000	400	287,600	-	-	-	-	-	288,00
Warrants issued for services in September 2005, vested during 2007, valued at $1.45/share	-	-	36,370	-	-	-	-	-	36,370
Warrants issued for services in March 2007, vested during 2007, valued at $0.63/share	-	-	52,180	-	-	-	-	-	52,180
Warrants issued for services in April 2007, vested during 2007, valued at $0.69/share	-	-	293,476	-	-	-	-	-	293,47
Warrants issued for	-	-	140,490	-	-	-	-	-	140,49

services in April 2007, vested during 2007, valued at $0.63/share									
Warrants issued for services in May 2007, vested during 2007, valued at $0.56/share	-	-	52,946	-	-	-	-	-	52,946
Warrants issued for services in October 2007, vested during 2007, valued at $0.61/share	-	-	61,449	-	-	-	-	-	61,449
Warrants issued for services in October 2007, vested during 2007, valued at $0.78/share	-	-	52,292	-	-	-	-	-	52,292
Warrants issued for services in December 2007, vested during 2007, valued at $0.55/share	-	-	1,159	-	-	-	-	-	1,159
Options issued for services in February 2006, vested during 2007, valued at $1.01/share	-	-	17,589	-	-	-	-	-	17,589
Options issued for services in February 2006, vested during 2007, valued at $1.09/share	-	-	43,757	-	-	-	-	-	43,757
Options issued for services in November 2007, vested during 2007,	-	-	41,653	-	-	-	-	-	41,653

valued at $0.60/share									
Warrants issued for future services in April 2007, vested during 2007, valued at $0.70/share	-	-	348,000	-	-	-	-	-	348,00
Deferred charges for common stock issued for future services in March 2007, valued at $0.58/share	-	-	-	-	(928,000)	-	-	-	(928,00
Amortization of deferred charges	-	-	-	-	773,333	-	-	-	773,33
Unrealzed gain (loss) on securities	-	-	-	-	-	(32,610)	-	-	(32,61
Net loss for the year ending December 31, 2007	-	-	-	-	-	-	-	(4,223,449)	(4,223,
BALANCE AT DECEMBER 31, 2007	33,690,075	33,690	10,449,763	-	(154,667)	(58,610)	(15,827)	(9,601,169)	653,18
Common stock issued in private placement during 2008 at $0.60/share	690,001	690	413,310	-	-	-	-	-	414,00
Common stock issued for services in March 2008, valued at $0.75/share	100,000	100	74,900	-	-	-	-	-	75,000
Common stock issued for services in August 2008, valued at $1.80/share	200,000	200	359,800	-	-	-	-	-	360,00
	320,000	320	79,680	-	-	-	-	-	80,000

Exercise of warrants at $0.25/share									
Exercise of warrants at $0.25/share, pursuant to November 2008 adjusted stock offering	641,080	641	159,629	-					160,27
Exercise of warrants at $0.50/share	270,000	270	134,730	-	-	-	-	-	135,00
Warrants issued for services in September 2005, vested during 2008, valued at $1.45/share	-	-	27,014	-	-	-	-	-	27,014
Warrants issued for services in March 2007, vested during 2008, valued at $0.63/share	-	-	10,885	-	-	-	-	-	10,885
Warrants issued for services in April 2007, vested during 2008, valued at $0.69/share	-	-	121,713	-	-	-	-	-	121,71
Warrants issued for services in April 2007, vested during 2008, valued at $0.63/share	-	-	48,738	-	-	-	-	-	48,738
Warrants issued for services in May 2007, vested during 2008, valued at $0.56/share	-	-	31,444	-	-	-	-	-	31,444
Warrants issued for	-	-	12,487	-	-	-	-	-	12,487

services in December 2007, vested during 2008, valued at $0.55/share									
Options issued for services in November 2007, vested during 2008, valued at $0.60/share	-	-	286,803	-	-	-	-	-	286,80
Options issued for services in January 2008, vested during 2008, valued at $0.60/share	-	-	30,750	-	-	-	-	-	30,750
Options issued for services in July 2008, vested during 2008, valued at $1.48/share	-	-	114,519	-	-	-	-	-	114,51
Options issued for services in August 2008, vested during 2008, valued at $1.36/share	-	-	525,263	-	-	-	-	-	525,26
Options issued for services in November 2008, vested during 2008, valued at $0.50/share	-	-	6,439	-	-	-	-	-	6,439
Warrants issued for future services in March 2008, vested through September 2008, valued at $0.83/share	-	-	332,000	-	(332,000)	-	-	-	-
Warrants issued for services in May 2008, vested through	-	-	976,193	-	-	-	-	-	976,19

September 2008, valued at $1.63/share									
Amortization of deferred charges	-	-	-	-	431,337	-	-	-	431,33
Receivable for the issuance of common stock	-	-	-	(12,500)	-	-	-	-	(12,500
Realized loss reclassification	-	-	-	-	-	58,610	-	-	58,610
Net loss for the year ending December 31, 2008	-	-	-	-	-	-	-	(4,340,607)	(4,340,
BALANCE AT DECEMBER 31, 2008	35,911,156	$35,911	$14,196,060	$(12,500)	$(55,330)	$-	$(15,827)	$(13,941,776)	$206,53

See accompanying notes to these financial statements.

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LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
STATEMENT OF STOCKHOLDERS' EQUITY
FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO
JUNE 30, 2013 (CONTINUED)
(UNAUDITED)

	Number of Shares	Common Stock	Paid-in Capital	Subscription Receivable/ Receivable for Issuance of Common Stock	Deferred Charges	Unrealized Loss on Securities	Accumulated Deficit	Deficit Accumulated During Development Stage	Total
BALANCE AT DECEMBER 31, 2008	35,911,156	$35,911	$14,196,060	$(12,500)	$(55,330)	$-	$(15,827)	$(13,941,776)	$206,538
Rights to purchase shares issued in January 2009, vested during 2009, valued at $0.33/share	-	-	132,058	-	-	-	-	-	132,058
Common stock issued for services in January 2009, valued at $0.58/share	100,000	100	57,900	-	-	-	-	-	58,000
Common stock issued for services & settlement for accounts payable January 2009 valued at $0.25/share	100,000	100	24,900	-	-	-	-	-	25,000
Exercise of purchase right agreement in January 2009 at $0.25/share	180,550	181	44,957	-	-	-	-	-	45,138
	1,279,336	1,279	318,555	-	-	-	-	-	319,834

Exercise of warrants at $0.25/share, pursuant to November 2008 adjusted stock offering									
Exercise of warrants at $0.001/share	400,000	400	-	-	-	-	-	-	400
Exercise of warrants at $1.00/share	355,000	355	354,645	-	-	-	-	-	355,000
Options issued for services in November 2007, vested during 2009, valued at $0.60/share	-	-	199,234	-	-	-	-	-	199,234
Options issued for services in January 2008, vested during 2009, valued at $0.60/share	-	-	13,583	-	-	-	-	-	13,583
Options issued for services in July 2008, vested during 2009, valued at $1.48/share	-	-	67,838	-	-	-	-	-	67,838
Options issued for services in August 2008, vested during 2009, valued at $1.36/share	-	-	623,246	-	-	-	-	-	623,246
Options issued for services in November 2008, vested during 2009, valued at $0.50/share	-	-	61,346	-	-	-	-	-	61,346
	-	-	13,136	-	-	-	-	-	13,136

Options issued for services in January 2009, vested during 2009, valued at $0.53/share									
Options issued for services in February 2009, vested during 2009, valued at $0.38/share	-	-	9,583	-	-	-	-	-	9,583
Options issued for services in June 2009, vested during 2009, valued at $0.85/share	-	-	21,085	-	-	-	-	-	21,085
Warrants issued for services in June 2009, vested during 2009, valued at $0.85/share	-	-	177,881	-	-	-	-	-	177,881
Contribution of accrued payroll in February 2009	-	-	52,129	-	-	-	-	-	52,129
Amortization of deferred charges	-	-	-	-	55,330	-	-	-	55,330
Payment for the issuance of common stock	-	-	-	12,500	-	-	-	-	12,500
Common stock issued for services in June 2009, valued at $0.34/share	116,000	116	39,884	-	-	-	-	-	40,000
Common stock issued for services & settlement for	145,000	145	49,855	-	-	-	-	-	50,000

accounts payable June 2009 valued at $0.34/share									
Common stock issued in private placement during June 2009 at $0.34/share	2,479,500	2,480	852,520	-	-	-	-	-	855,000
Common stock issued for services in July 2009, valued at $0.75/share	100,000	100	74,900	-	-	-	-	-	75,000
Net loss for the year ending December 31, 2009	-	-	-	-	-	-	-	(2,721,871)	(2,721,871)
BALANCE AT December 31, 2009	41,166,542	41,167	17,385,295	-	-	-	(15,827)	(16,663,647)	746,988
Options issued for services in November 2007, vested during 2010, valued at $0.60/share	-	-	174,866	-	-	-	-	-	174,866
Options issued for services in January 2008, vested during 2010, valued at $0.60/share	-	-	14,873	-	-	-	-	-	14,873
Options issued for services in July 2008, vested during 2010, valued at $1.48/share	-	-	74,061	-	-	-	-	-	74,061
Options issued for	-	-	643,812	-	-	-	-	-	643,812

services in August 2008, vested during 2010, valued at $1.36/share									
Options issued for services in November 2008, vested during 2010, valued at $0.50/share	-	-	31,478	-	-	-	-	-	31,478
Warrants issued for services in June 2009, vested during 2010, valued at $0.85/share	-	-	213,459	-	-	-	-	-	213,459
Warrants issued for services in January 2010, vested during 2010, valued at $1.83/share			580,167	-	-	-	-	-	580,167
Warrants issued for services in March 2010, vested during 2010, valued at $1.86/share	-	-	214,063	-	-	-	-	-	214,063
Options issued for services in August 2010, vested during 2010, valued at $1.31/share			27,434	-	-	-	-	-	27,434
Options issued for services in December 2010, vested during 2010, valued at $1.14/share			286,002	-	-	-	-	-	286,002
Exercise of warrants at	947,200	947	235,853	-	-	-	-	-	236,800

$0.25/share									
Exercise of options at $0.25/share	15,000	15	3,735	-	-	-	-	-	3,750
Exercise of warrants at $0.345/share	10,000	10	3,440	-	-	-	-	-	3,450
Exercise of warrants at $0.50/share	25,000	25	12,475	-	-	-	-	-	12,500
Exercise of warrants at $1.00/share	282,500	283	282,218	-	-	-	-	-	282,500
Common stock issued in private placement during 2010 at $1.00/share	1,500,000	1,500	1,498,500	-	-	-	-	-	1,500,000
Common stock issued for services in August 2010, valued at $1.25/share	4,800	4	5,996	-	-	-	-	-	6,000
Common stock issued for services in November 2010, valued at $0.93/share	5,000	5	4,645	-	-	-	-	-	4,650
Common stock issued for services in December 2010, valued at $01.20/share	10,000	10	11,990	-	-	-	-	-	12,000
Net loss for the year ending December 31, 2010	-	-	-	-	-	-	-	(3,713,232)	(3,713,232)
BALANCE AT DECEMBER 31, 2010	43,966,042	$43,966	$21,704,361	$-	$-	$-	$(15,827)	$(20,376,879)	$1,355,621

See accompanying notes to these financial statements.

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LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
STATEMENT OF STOCKHOLDERS' EQUITY
FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO
JUNE 30, 2013 (CONTINUED)
(UNAUDITED)

	Number of Shares	Common Stock	Paid-in Capital	Subscription Receivable/ Receivable for Issuance of Common Stock	Deferred Charges	Unrealized Loss on Securities	Accumulated Deficit	Deficit Accumulated During Development Stage	Total
BALANCE AT DECEMBER 31, 2010	43,966,042	$ 43,966	$ 21,704,361	$ -	$ -	$ -	$ (15,827)	$ (20,376,879)	$ 1,355,621
Common stock issued for services in March 2011, valued at $1.45/share	10,000	10	14,490	-	-	-	-	-	14,500
Options issued for services in January 2008, vested during 2011, valued at $0.60/share	-	-	285	-	-	-	-	-	285
Options issued for services in July 2008, vested during 2011, valued at $1.48/share	-	-	39,829	-	-	-	-	-	39,829
Options issued for services in August 2008, vested during 2011, valued at $1.36/share	-	-	383,881	-	-	-	-	-	383,881
Options issued for services in November 2008, vested during 2011, valued at $0.50/share	-	-	26,648	-	-	-	-	-	26,648
	-	-	306,765	-	-	-	-	-	306,765

Warrants issued for services in January 2010, vested during 2011, valued at $1.83/share									
Warrants issued for services in March 2010, vested during 2011, valued at $1.86/share	-	-	64,983	-	-	-	-	-	64,983
Options issued for services in August 2010, vested during 2011, valued at $1.31/share	-	-	65,447	-	-	-	-	-	65,447
Options issued for services in December 2010, vested during 2011, valued at $1.14/share	-	-	212,136	-	-	-	-	-	212,136
Warrants issued for services in January 2011, vested during 2011, valued at $1.05/share	-	-	36,585	-	-	-	-	-	36,585
Warrants issued for services in April 2011, vested during 2011, valued at $0.98/share	-	-	109,820	-	-	-	-	-	109,820
Options issued for services in May 2011, vested during 2011, valued at $0.97/share	-	-	79,702	-	-	-	-	-	79,702
Options issued for services in August 2011, vested during 2011, valued at $0.82/share	-	-	17,204	-	-	-	-	-	17,204
Options issued for services in November 2011,	-	-	4,384	-	-	-	-	-	4,384

vested during 2011, valued at $0.53/share									
Options issued for services in December 2011, vested during 2011, valued at $0.82/share	-	-	53,124	-	-	-	-	-	53,124
Warrants issued for services in December 2011, vested during 2011, valued at $1.05/share	-	-	1,288	-	-	-	-	-	1,288
Common stock issued for commitment shares, valued at $1.08/share	150,830	151	162,746	-	-	-	-	-	162,896
Common stock issued to institutional investor, valued at $1.08/share	185,185	185	199,815	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.15/share	3,017	3	3,467	-	-	-	-	-	3,470
Common stock issued for services in June 2011, valued at $1.04/share	10,000	10	10,390	-	-	-	-	-	10,400
Common stock issued in private placement during 2011 at $1.00/share	1,000,000	1,000	999,000	-	-	-	-	-	1,000,000
Common stock issued for services in September 2011, valued at $1.45/share	10,000	10	14,490	-	-	-	-	-	14,500
Common stock issued for services in May 2011 through	2,018	2	2,161	-	-	-	-	-	2,163

August 2011, valued at $0.90/share to $1.25/share									
Net loss for the year ending December 31, 2011	-	-	-	-	-	-	-	(3,482,622)	(3,482,622)
BALANCE AT DECEMBER 31, 2011	45,337,092	$ 45,337	$ 24,513,000	$ -	$ -	$ -	$ (15,827)	$ (23,859,501)	$ 683,009

See accompanying notes to these financial statements.

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LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
STATEMENT OF STOCKHOLDERS' EQUITY
FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO
JUNE 30, 2013 (CONTINUED)
(UNAUDITED)

	Number of Shares	Common Stock	Paid-in Capital	Subscription Receivable/ Receivable for Issuance of Common Stock	Deferred Charges	Unrealized Loss on Securities	Accumulated Deficit	Deficit Accumulated During Development Stage	Total
BALANCE AT DECEMBER 31, 2011	45,337,092	$ 45,337	$ 24,513,000	$ -	$ -	$ -	$ (15,827)	$ (23,859,501)	$ 683,009
Common stock issued to institutional investor, valued at $1.013/share	197,433	198	199,802	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.64/share	3,017	3	4,945	-	-	-	-	-	4,948
Common stock issued to institutional investor, valued at $1.197/share	167,084	167	199,832	-	-	-	-	-	199,999
Common stock issued for additional commitment shares, valued at $1.67/share	3,017	3	5,035	-	-	-	-	-	5,038
Common stock issued to institutional investor, valued at $1.58/share	316,455	317	499,682	-	-	-	-	-	499,999
Common stock issued for additional	7,542	7	21,638	-	-	-	-	-	21,645

commitment shares, valued at $2.87/share									
Common stock issued to institutional investor, valued at $1.66/share	120,482	120	199,880	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.97/share	3,017	3	5,940	-	-	-	-	-	5,943
Common stock issued to institutional investor, valued at $1.897/share	158,144	158	299,841	-	-	-	-	-	299,999
Common stock issued for additional commitment shares, valued at $2.60/share	4,525	5	11,760	-	-	-	-	-	11,765
Common stock issued to institutional investor, valued at $2.073/share	96,479	97	199,904	-	-	-	-	-	200,001
Common stock issued for additional commitment shares, valued at $2.64/share	3,017	3	7,962	-	-	-	-	-	7,965
Common stock issued to institutional investor, valued at $2.19/share	91,324	92	199,908	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $2.23/share	3,017	3	6,725	-	-	-	-	-	6,728
Common stock issued to institutional investor, valued at	119,048	119	199,882	-	-	-	-	-	200,001

$1.68/share									
Common stock issued for additional commitment shares, valued at $1.80/share	3,017	3	5,428	-	-	-	-	-	5,431
Common stock issued to institutional investor, valued at $1.81/share	220,994	221	399,778	-	-	-	-	-	399,999
Common stock issued for additional commitment shares, valued at $1.88/share	3,017	3	5,669	-	-	-	-	-	5,672
Common stock issued for additional commitment shares, valued at $1.92/share	3,017	3	5,790	-	-	-	-	-	5,793
Common stock issued to institutional investor, valued at $1.53/share	130,719	131	199,870	-	-	-	-	-	200,001
Common stock issued for additional commitment shares, valued at $1.60/share	3,017	3	4,824	-	-	-	-	-	4,827
Common stock issued to institutional investor, valued at $1.667/share	119,976	120	199,880	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.93/share	3,017	3	5,820	-	-	-	-	-	5,823
Common stock issued to institutional investor, valued at $1.51/share	132,450	132	199,867	-	-	-	-	-	199,999

Common stock issued for additional commitment shares, valued at $1.70/share	6,034	6	10,252	-	-	-	-	-	10,258
Common stock issued to institutional investor, valued at $1.677/share	119,261	119	199,882	-	-	-	-	-	200,001
Common stock issued for additional commitment shares, valued at $1.35/share	3,017	3	4,070	-	-	-	-	-	4,073
Common stock issued to institutional investor, valued at $1.13/share	176,991	177	199,823	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.28/share	3,017	3	3,859	-	-	-	-	-	3,862
Common stock issued to institutional investor, valued at $1.1267/share	177,510	178	199,823	-	-	-	-	-	200,001
Common stock issued for additional commitment shares, valued at $1.28/share	3,017	3	3,859	-	-	-	-	-	3,862
Common stock issued to institutional investor, valued at $1.107/share	180,668	180	199,820	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.18/share	3,017	3	3,557	-	-	-	-	-	3,560
	181,818	182	199,818	-	-	-	-	-	200,000

Common stock issued to institutional investor, valued at $1.10/share									
Common stock issued for additional commitment shares, valued at $1.08/share	3,017	3	3,255	-	-	-	-	-	3,258
Common stock issued to institutional investor, valued at $1.063/share	188,147	188	199,812	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.09/share	3,017	3	3,286	-	-	-	-	-	3,289
Common stock issued to institutional investor, valued at $1.02/share	196,078	196	199,803	-	-	-	-	-	199,999
Common stock issued for additional commitment shares, valued at $1.04/share	1,508	2	1,566	-	-	-	-	-	1,568
Common stock issued to institutional investor, valued at $1.02/share	98,039	98	99,902	-	-	-	-	-	100,000
Common stock issued for additional commitment shares, valued at $1.10/share	2,262	2	2,486	-	-	-	-	-	2,488
Common stock issued to institutional investor, valued at $1.00/share	350,000	350	349,650	-	-	-	-	-	350,000
Common stock issued for	3,017	3	3,014	-	-	-	-	-	3,017

additional commitment shares, valued at $1.00/share									
Subtotal	48,949,352	$ 48,950	$ 29,490,199	$ -	$ -	$ -	$ (15,827)	$ (23,859,501)	$ 5,663,821

See accompanying notes to these financial statements.

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LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
STATEMENT OF STOCKHOLDERS' EQUITY
FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO
JUNE 30, 2013 (CONTINUED)
(UNAUDITED)

	Number of Shares	Common Stock	Paid-in Capital	Subscription Receivable/ Receivable for Issuance of Common Stock	Deferred Charges	Unrealized Loss on Securities	Accumulated Deficit	Deficit Accumulated During Development Stage	Total
Subtotal	48,949,352	$ 48,950	$ 29,490,199	$ -	$ -	$ -	$ (15,827)	$ (23,859,501)	$ 5,663,821
Exercise of options at $0.65/share	250,000	250	162,250	-	-	-	-	-	162,500
Exercise of warrants at $1.25/share	40,000	40	49,960	-	-	-	-	-	50,000
Exercise of warrants at $0.34/share	20,000	20	6,880	-	-	-	-	-	6,900
Exercise of warrants at $0.25/share	900,000	900	224,100						225,000
Common stock issued for services in October 2011 through January 2012, valued at $0.65/share to $2.70/share	1,406	1	1,606	-	-	-	-	-	1,607
Options issued for services in August 2010, vested during 2012, valued at $1.31/share	-	-	38,194	-	-	-	-	-	38,194
Options issued for services in December 2010, vested during 2012, valued at $1.14/share	-	-	85,290	-	-	-	-	-	85,290

Warrants issued for services in April 2011, vested during 2012, valued at $0.98/share	-	-	36,605	-	-	-	-	-	36,605
Options issued for services in May 2011, vested during 2012, valued at $0.97/share	-	-	48,510	-	-	-	-	-	48,510
Options issued for services in August 2011, vested during 2012, valued at $0.82/share	-	-	41,156	-	-	-	-	-	41,156
Options issued for services in November 2011, vested during 2012, valued at $0.53/share	-	-	26,304	-	-	-	-	-	26,304
Options issued for services in December 2011, vested during 2012, valued at $0.82/share	-	-	51,392	-	-	-	-	-	51,392
Warrants issued for services in December 2011, vested during 2012, valued at $1.05/share	-	-	157,127	-	-	-	-	-	157,127
Options issued for services in March 2012, vested during 2012, valued at $1.37/share	-	-	139,755	-	-	-	-	-	139,755
Options issued for services in March 2012, vested during 2012, valued at $1.37/share	-	-	42,227	-	-	-	-	-	42,227
Warrants issued for services in March 2012,	-	-	13,709	-	-	-	-	-	13,709

vested during 2012, valued at $1.37/share									
Options issued for services in May 2012, vested during 2012, valued at $1.23/share	-	-	462,455	-	-	-	-	-	462,455
Warrants issued for services in May 2012, vested during 2012, valued at $0.97/share	-	-	55,648	-	-	-	-	-	55,648
Options issued for services in June 2012, vested during 2012, valued at $0.73/share	-	-	56,568	-	-	-	-	-	56,568
Options issued for services in August 2012, vested during 2012, valued at $0.74/share	-	-	15,611	-	-	-	-	-	15,611
Options issued for services in August 2012, vested during 2012, valued at $0.75/share	-	-	7,137	-	-	-	-	-	7,137
Warrants issued for services in December 2012, vested during 2012, valued at $0.78/share	-	-	28,237	-	-	-	-	-	28,237
Options extended for services in November 2012, vested during 2012, valued at $0.27/share	-	-	266,710	-	-	-	-	-	266,710
Options extended for services in November 2012, vested during 2012, valued at $0.25/share	-	-	25,420	-	-	-	-	-	25,420

Options extended for services in November 2012, vested during 2012, valued at $0.24/share	-	-	60,283	-	-	-	-	-	60,283
Options extended for services in November 2012, vested during 2012, valued at $0.29/share	-	-	309,049	-	-	-	-	-	309,049
Options extended for services in November 2012, vested during 2012, valued at $0.29/share	-	-	29,375	-	-	-	-	-	29,375
Options extended for services in November 2012, vested during 2012, valued at $0.26/share	-	-	39,270	-	-	-	-	-	39,270
Options extended for services in November 2012, vested during 2012, valued at $0.30/share	-	-	29,529	-	-	-	-	-	29,529
Options extended for services in November 2012, vested during 2012, valued at $0.28/share	-	-	42,195	-	-	-	-	-	42,195
Net loss for the year ending December 31, 2012	-	-	-	-	-	-	-	(4,556,538)	(4,556,538)
BALANCE AT DECEMBER 31, 2012	50,160,758	$ 50,161	$ 32,042,751	$ -	$ -	$ -	$ (15,827)	$ (28,416,039)	$ 3,661,046

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
STATEMENT OF STOCKHOLDERS' EQUITY
FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO
JUNE 30, 2013 (CONTINUED)
(UNAUDITED)

	Number of Shares	Common Stock	Paid-in Capital	Subscription Receivable/ Receivable for Issuance of Common Stock	Deferred Charges	Unrealized Loss on Securities	Accumulated Deficit	Deficit Accumulated During Development Stage	Total
BALANCE AT DECEMBER 31, 2012	50,160,758	$ 50,161	$ 32,042,751	$ -	$ -	$ -	$ (15,827)	$ (28,416,039)	$ 3,661,046
Common stock issued to institutional investor, valued at $1.07/share	186,916	187	199,813	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.11/share	3,017	3	3,346	-	-	-	-	-	3,349
Common stock issued to institutional investor, valued at $1.027/share	196,078	196	199,803	-	-	-	-	-	199,999
Common stock issued for additional commitment shares, valued at $1.07/share	3,017	3	3,225	-	-	-	-	-	3,228
Common stock issued to institutional investor, valued at $1.037/share	192,864	193	199,807	-	-	-	-	-	200,000
Common stock issued for additional	3,017	3	4,100	-	-	-	-	-	4,103

commitment shares, valued at $1.36/share									
Common stock issued to institutional investor, valued at $1.1367/share	175,948	176	199,824	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.35/share	3,017	3	4,070	-	-	-	-	-	4,073
Common stock issued to institutional investor, valued at $1.2533/share	159,579	160	199,841	-	-	-	-	-	200,001
Common stock issued for additional commitment shares, valued at $2.59/share	3,017	3	4,794	-	-	-	-	-	4,797
Common stock issued to institutional investor, valued at $$1.34/share	149,254	149	199,851	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.55/share	3,017	3	4,674	-	-	-	-	-	4,677
Common stock issued to institutional investor, valued at $1.14/share	175,439	175	199,825	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.19/share	3,017	3	3,587	-	-	-	-	-	3,590
Common stock issued to institutional investor, valued at	192,308	192	199,808	-	-	-	-	-	200,000

$1.04/share									
Common stock issued for additional commitment shares, valued at $1.08/share	3,017	3	3,256	-	-	-	-	-	3,259
Common stock issued to institutional investor, valued at $1.00/share	200,000	200	199,800	-	-	-	-	-	200,000
Common stock issued for additional commitment shares, valued at $1.06/share	3,017	3	3,195	-	-	-	-	-	3,198
Common stock issued for commitment shares, valued at $0.85/share	200,000	200	169,800	-	-	-	-	-	170,000
Exercise of warrants at $1.25/share	12,500	13	15,612	-	-	-	-	-	15,625
Exercise of warrants at $0.345/share	20,000	20	6,880	-	-	-	-	-	6,900
Reversal of common stock issuance during 2013 at $0.50/share	(2,000)	(2)	2	-	-	-	-	-	-
Options issued for services in December 2010, vested during 2013, valued at $1.14/share	-	-	42,180	-	-	-	-	-	42,180
Options issued for services in May 2011, vested during 2013, valued at $0.97/share	-	-	23,990	-	-	-	-	-	23,990
Options issued for services in August 2011, vested during 2013, valued at $0.82/share	-	-	20,353	-	-	-	-	-	20,353
Options issued for services in	-	-	13,008	-	-	-	-	-	13,008

November 2011, vested during 2013, valued at $0.53/share									
Options issued for services in December 2011, vested during 2013, valued at $0.82/share	-	-	25,416	-	-	-	-	-	25,416
Options issued for services in March 2012, vested during 2013, valued at $1.37/share	-	-	29,154	-	-	-	-	-	29,154
Options issued for services in May 2012, vested during 2013, valued at $1.23/share	-	-	151,350	-	-	-	-	-	151,350
Warrants issued for services in May 2012, vested during 2013, valued at $0.97/share	-	-	41,738	-	-	-	-	-	41,738
Options issued for services in June 2012, vested during 2013, valued at $0.73/share	-	-	17,995	-	-	-	-	-	17,995
Options issued for services in August 2012, vested during 2013, valued at $0.74/share	-	-	18,468	-	-	-	-	-	18,468
Options issued for services in August 2012, vested during 2013, valued at $0.75/share	-	-	9,295	-	-	-	-	-	9,295
Warrants issued for services in December 2012, vested during 2013, valued at $0.78/share	-	-	36,333	-	-	-	-	-	36,333
Options issued for services in March 2013, vested during 2013, valued at $1.08/share	-	-	13,550	-	-	-	-	-	13,550

Options issued for services in May 2013, vested during 2013, valued at $0.96/share	-	-	800	-	-	-	-	-	800
Options issued for services in May 2013, vested during 2013, valued at $0.81/share	-	-	11,809	-	-	-	-	-	11,809
Net loss for six months ending June 30, 2013	-	-	-	-	-	-	-	(2,071,634)	(2,071,634)
BALANCE AT JUNE 30, 2013 (UNAUDITED)	52,046,797	$ 52,047	$ 34,523,103	$ -	$ -	$ -	$ (15,827)	$ (30,487,673)	$ 4,071,650

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
STATEMENTS OF CASH FLOW
FOR THE SIX MONTHS ENDING JUNE 30, 2013 AND 2012 AND
FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO
JUNE 30, 2013
(UNAUDITED)

	Cumulative Since Inception	For the Six Months Ending June 30, 2013	For the Six Months Ending June 30, 2012
CASH FLOWS FROM OPERATING ACTIVITIES			
Net loss	$(30,487,673)	$ (2,071,634)	$ (1,898,950)
Adjustment to reconcile net loss to net cash used in operating activities			
Amortization of deferred charges	4,392,456	-	-
Amortization of prepaid expenses	75,000	-	-
Warrants issued for services	4,136,844	78,071	142,360
Stock options issued for services	7,167,176	377,368	535,012
Common stock issued for services and fees	1,660,565	204,274	122,058
Purchase right agreement amortization	132,058	-	-
Depreciation and amortization of patents	281,977	59,333	22,110
Realized gain on investments	(3,911)	-	-
Realized gain on disposal of assets	(637)	-	-
(Increase) decrease in assets			
Receivables	(30,461)	-	-
Prepaid expenses and other current assets	(166,768)	(76,793)	(81,668)
Increase (decrease) in liabilities			
Accounts payable	248,014	18,715	(47,715)
Accounts payable and accrued expenses- related parties	(5,577)	29,743	(38,538)
Accrued expenses	87,595	6,717	55,731
Net cash used in operating activities	(12,513,342)	(1,374,206)	(1,189,600)
CASH FLOWS FROM INVESTING ACTIVITIES			
Cost of intangibles	(549,528)	(26,493)	(63,366)
Proceeds from sale of available for sale securities	203,911	-	-
Proceeds from receipt of note receivable	100,000		-
Purchase of available for sale securities	(200,000)	-	-
Purchase of equipment, furniture and leasehold improvements	(551,401)	(99,522)	(128,236)
Net cash used in investing activities	(997,018)	(126,015)	(191,602)
CASH FLOWS FROM FINANCING ACTIVITIES			
Issuance of common stock, private placement	7,495,524	-	-
Common stock rescinded, private placement	(200,000)	-	-
Issuance of common stock, exercise of options and warrants	2,043,929	22,525	444,400
Issuance of common stock, exercise of purchase right agreement	45,138	-	-

Issuance of common stock, institutional investor	6,849,999	1,800,000	4,200,000
Repayment of notes payable	(14,970)	-	-
Proceeds from subscription receivable	19,000	-	-
Advances to stockholders	(4,933)	-	-
Proceeds from convertible notes	529,000	-	-
Advances from officers	1,498	-	-
Net cash provided by financing activities	16,764,185	1,822,525	4,644,400
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	3,253,825	322,304	3,263,198
CASH AND CASH EQUIVALENTS - BEGINNING OF PERIOD	5,358	2,936,879	359,824
CASH AND CASH EQUIVALENTS - END OF PERIOD	$3,259,183	$ 3,259,183	$ 3,623,022

See accompanying notes to these financial statements.

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LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
STATEMENTS OF CASH FLOW
FOR THE SIX MONTHS ENDING JUNE 30, 2013 AND 2012 AND
FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO
JUNE 30, 2013
(UNAUDITED)

	Cumulative Since Inception	For the Six Months Ending June 30, 2013	For the Six Months Ending June 30, 2012
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION			
CASH PAID DURING THE PERIOD FOR:			
Interest	$23,232	$ -	$ 109
SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES			
Common stock issued in exchange for deferred charges	$3,142,400 `	$ -	$ -
Warrants issued in exchange for deferred charges	$1,581,056	$ -	$ -
Common stock issued as settlement for accounts payable	$74,708	$ -	$ -
Accrued interest contributed as capital	$35,624	$ -	$ -
Common stock issued in the conversion of notes payable	$529,000	$ -	$ -
Acquisition of automobile through loan payable	$24,643	$ -	$ -
Common stock issued upon exercise of a warrant in exchange for receivable	$75,000	$ -	$ -
Insurance company pay off of note payable	$9,673	$ -	$ -
Receivable for issuance of common stock	$210,001	$ -	$ 200,001
Contribution of officer accrued payroll	$52,129	$ -	$ -
Common stock issued for prepaid expense	$75,000	$ -	$ -

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2013 AND 2012

NOTE 1- FINANCIAL STATEMENTS

The accompanying unaudited financial statements have been prepared by Lightwave Logic, Inc. (the Company). These statements include all adjustments (consisting only of its normal recurring adjustments) which management believes necessary for a fair presentation of the statements and have been prepared on a consistent basis using the accounting polices described in the Summary of Accounting Policies included in the 2012 Annual Report. Certain financial information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States have been condensed or omitted pursuant to the rules and regulations of the Securities and Exchange Commission, although the Company firmly believes that the accompanying disclosures are adequate to make the information presented not misleading. The financial statements should be read in conjunction with the financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2012, as filed with the Securities and Exchange Commission. The interim operating results for the three and six months ending June 30, 2013 may not be indicative of operating results expected for the full year.

Loss per Share

The Company follows Financial Accounting Standards Board Accounting Standards Codification ("FASB ASC") 260, "Earnings per Share", resulting in the presentation of basic and diluted earnings per share. Because the Company reported a net loss in 2013 and 2012, common stock equivalents, including stock options and warrants were anti-dilutive; therefore, the amounts reported for basic and dilutive loss per share were the same.

Comprehensive Income

The Company follows FASB ASC 220.10, "Reporting Comprehensive Income." Comprehensive income is a more inclusive financial reporting methodology that includes disclosure of certain financial information that historically has not been recognized in the calculation of net income. Since the Company has no items of other comprehensive income, comprehensive income (loss) is equal to net income (loss).

Recently Issued Accounting Pronouncements Not Yet Adopted

As of June 30, 2013, there are no recently issued accounting standards not yet adopted which would have a material effect on the Company's financial statements.

Recently Adopted Accounting Pronouncements

As of June 30, 2013 and for the period then ended, there were no recently adopted accounting pronouncements that had a material effect on the Company's financial statements.

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2013 AND 2012

NOTE 2 – MANAGEMENT'S PLANS

The Company currently has a cash position of approximately $3,020,000. Based upon the current cash position and expenditures of approximately $250,000 per month and no debt service, management believes the Company has sufficient funds currently to finance its operations through July 2014. In May 2011, the Company signed an agreement with an institutional investor to sell up to $20 million of common stock. Under the agreement subject to certain conditions and at the Company's sole discretion, the institutional investor has committed to invest up to $20 million in the Company's common stock over a 30-month period with the remaining available amount of $13,150,001. The Company filed a registration statement with the U.S. Securities and Exchange Commission covering the resale of the shares that may be issued to the institutional investor. The institutional investor is obligated to make purchases as the Company directs in accordance with the agreement that may be terminated by the Company at any time, without cost or penalty. The agreement expires in December 2013. Sales of shares will be made in specified amounts and at prices that are based upon the market prices of the Company's common stock. In June 2013 the Company signed a new agreement with an institutional investor to resale up to $20 million of common stock. Under the agreement subject to certain conditions and at the Company's sole discretion, the institutional investor has committed to invest up to $20 million in the Company's common stock over a 30-month period. The Company will file a registration statement with the U.S. Securities and Exchange Commission, within 10 business days after filing its June 30, 2013 Form 10-Q, covering the resale of the shares that may be issued to the institutional investor. Additional funding may also be provided by the exercise of 1,178,750 outstanding warrants at an exercise price of $1.00 and $1.25, which may raise additional capital up to approximately $2,285,000. The 1,178,750 warrants expire on September 15, 2013. With additional capital raised, the Company expects to achieve a level of revenues attractive enough to fulfill its development activities and achieve a level of revenue adequate to support the Company's business model. The Company continues to develop and test its next generation Electro-Optic and third-order material platform to support and cultivate potential customers, strategic partners and develop photonic devices. Management believes the Company's initial revenue stream will be in prototype devices, application and non-recurring engineering charges, and material charges for specialty non-linear application prior to moving into full commercialization and production.

NOTE 3 – EQUIPMENT

Equipment consists of the following:

	June 30, 2013	December 31, 2012
Office equipment	$ 22,145	$ 12,741
Lab equipment	467,582	388,521
Furniture	4,061	4,061
Leasehold Improvements	37,519	28,134
	531,307	433,457
Less: Accumulated depreciation	182,693	132,463
	$ 348,614	$ 300,994

Depreciation expense for the six months ending June 30, 2013 and 2012 was $51,902 and $16,486. Depreciation expense for the three months ending June 30, 2013 and 2012 was $29,289 and $9,750.

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2013 AND 2012

NOTE 4 – INTANGIBLE ASSETS

This represents legal fees and patent fees associated with the prosecution of patent applications. The Company has recorded amortization expenses on the Spacer and Chromophore patents granted by the United States Patent and Trademark Office in February 2011, April 2011 and September 2012, which are amortized over its legal life of 20 years and Chromophore patent granted by the Australian Patent Office in November 2012 which is amortized over its legal life of 20 years. Certain patent applications are abandoned by the Company when the claims are covered by patents already granted to the Company. Patent applications abandoned have been written off at full capitalized cost. No amortization expense has been recorded on the remaining patent applications since patents have yet to be granted. Once the patents are granted, the cost of the patents will be amortized over their legal lives, which is generally 20 years.

Patents consists of the following:

	June 30, 2013	December 31, 2012
Patents	$ 535,853	$ 509,360
Less: Accumulated amortization	28,265	20,834
	$ 507,588	$ 488,526

Amortization expense for the six months ending June 30, 2013 and 2012 was $7,431 and $5,624. Amortization expense for the three months ending June 30, 2013 and 2012 was $3,715 and $2,812. Expense for abandoned patents for claims covered by patents already granted to the Company are recorded in research and development expenses and for the three months and six months ending June 30, 2013 and 2012 were $0 and $0.

NOTE 5 – INCOME TAXES

There is no income tax benefit for the losses for the three and six months ended June 30, 2013 and 2012 since management has determined that the realization of the net deferred tax asset is not assured and has created a valuation allowance for the entire amount of such benefits.

The Company’s policy is to record interest and penalties associated with unrecognized tax benefits as additional income taxes in the statement of operations. As of January 1, 2013, the Company had no unrecognized tax benefits, or any tax related interest of penalties. There were no changes in the Company’s unrecognized tax benefits during the period ended June 30, 2013. The Company did not recognize any interest or penalties during 2013 related to unrecognized tax benefits. With few exceptions, the U.S. and state income tax returns filed for the tax years ending on December 31, 2009 and thereafter are subject to examination by the relevant taxing authorities.

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2013 AND 2012

NOTE 6 – STOCKHOLDERS' EQUITY

Preferred Stock

Pursuant to our Company's Articles of Incorporation, our board of directors is empowered, without stockholder approval, to issue series of preferred stock with any designations, rights and preferences as they may from time to time determine. The rights and preferences of this preferred stock may be superior to the rights and preferences of our common stock; consequently, preferred stock, if issued could have dividend, liquidation, conversion, voting or other rights that could adversely affect the voting power or other rights of the common stock. Additionally, preferred stock, if issued, could be utilized, under special circumstances, as a method of discouraging, delaying or preventing a change in control of our business or a takeover from a third party.

Common Stock and Warrants

During April 2008, the Company issued a warrant to purchase 600,000 shares of common stock at a purchase price of $0.73 per share for consulting services rendered. The warrant was valued at $976,193, fair value, using the Black-Scholes Option Pricing Formula, vesting immediately. For the year ended December 31, 2008, the Company recognized $976,193 in consulting expense. During January 2013, the warrant agreement was amended from 600,000 warrants to 400,000 shares at an exercise price of $0.73 expiring October 2013 and 200,000 shares were rescinded. The modification did not result in the recognition of any additional expense. The warrant to purchase 400,000 shares of common stock is still outstanding as of June 30, 2013.

During 2010, the Company issued 1,500,000 shares of common stock and warrants to purchase 375,000 shares of common stock with 156,250 warrants expiring September 2011 and 218,750 warrants expiring December 2011 for proceeds of $1,500,000 in accordance to a private placement memorandum as amended on September 14, 2010. Pursuant to the terms of the offerings, up to 30 units were offered at the purchase price of $50,000 per unit, with each unit comprised of 50,000 shares and a warrant to purchase 12,500 shares of common stock at $1.25 per share. During September 2011, all warrants were extended one year expiring September 2012 and December 2012. In January 2012, some warrants were exercised to purchase 40,000 shares of common stock for proceeds of $50,000. During August 2012, all remaining warrants were extended six months expiring March 2013 and June 2013. During March 2013, 335,000 warrants were extended three months expiring June 2013 and September 2013. The extension did not result in the recognition of any additional expense. In March 2013, a warrant was exercised to purchase 12,500 shares of common stock for proceeds of $15,625. In June 2013, warrants to purchase 143,750 shares of common stock expired. The remaining warrants to purchase 178,750 shares of common stock at $1.25 per share are still outstanding as of June 30, 2013.

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2013 AND 2012

NOTE 6 – STOCKHOLDERS' EQUITY (CONTINUED)

Common Stock and Warrants (Continued)

In May 2011, the Company has signed an agreement with an institutional investor to sell up to $20 million of common stock. Under the agreement subject to certain conditions and at the Company's sole discretion, the institutional investor has committed to invest up to $20 million in the Company's common stock over a 30-month period. The Company filed a registration statement with the U.S. Securities and Exchange Commission covering the resale of the shares that may be issued to the institutional investor. The institutional investor is obligated to make purchases as the Company directs in accordance with the agreement, which may be terminated by the Company at any time, without cost or penalty. Sales of shares will be made in specified amounts and at prices that are based upon the market prices of the Company's common stock immediately preceding the sales to the institutional investor. The Company has issued 150,830 shares of common stock to the institutional investor as an initial commitment fee valued at $162,896, fair value and 301,659 shares of common stock are reserved for additional commitment fees to the institutional investor in accordance with the terms of the agreement. During June, 2011 through June, 2013, the institutional investor purchased 5,352,671 shares of common stock for proceeds of $6,849,998. The Company issued 103,330 shares of common stock as additional commitment fee, valued at $168,556, fair value, leaving 198,329 in reserve for additional commitment fees. For the six month ending June 30, 2013, the institutional investor purchased 1,628,386 shares of common stock for proceeds of $1,800,000 and the Company issued shares 27,153 of common stock as additional commitment fee, valued at $34,274, fair value.

In June 2013, the Company has signed a Purchase Agreement and Registration Rights Agreement with an institutional investor to sell up to $20 million of common stock. Under the agreement subject to certain conditions and at the Company's sole discretion, the institutional investor has committed to invest up to $20 million in the Company's common stock over a 30-month period. In accordance with the Registration Rights Agreement the Company is to file a registration statement with the U.S. Securities and Exchange Commission covering the resale of the shares that may be issued to the institutional investor. The Company will file the registration statement with the U.S. Securities and Exchange Commission, within 10 business days after filing its June 30, 2013 Form 10-Q. After the effective date of the Registration Statement the institutional investor is obligated to make purchases as the Company directs in accordance with the agreement, which may be terminated by the Company at any time, without cost or penalty. Sales of shares will be made in specified amounts and at prices that are based upon the market prices of the Company's common stock immediately preceding the sales to the institutional investor. The Company issued 200,000 shares of restricted common stock to the institutional investor as an initial commitment fee valued at $170,000, fair value and 400,000 shares of common stock are reserved for additional commitment fees to the institutional investor in accordance with the terms of the agreement.

In March 2013, the board of directors approved a grant to a new employee of an option to purchase up to 75,000 shares of common stock at a purchase price of $1.16 per share. Using the Black-Scholes Option Pricing Formula, the option was valued at $81,076, fair value. The option expires in 10 years with 9,375 vesting quarterly from date of grant. The option is expensed over the vesting terms. For the three and six month ending June 30, 2013, the Company recognized $10,107 and $13,550 of expense. As of June 30, 2013, options to purchase 75,000 shares of common stock are still outstanding.

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LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2013 AND 2012

NOTE 6 – STOCKHOLDERS' EQUITY (CONTINUED)

Common Stock and Warrants (Continued)

In May 2013, the board of directors approved a grant to a new employee of an option to purchase up to 10,000 shares of common stock at a purchase price of $1.03 per share. Using the Black-Scholes Option Pricing Formula, the option was valued at $9,574, fair value. The option expires in 10 years with 1,250 vesting quarterly from date of grant. The option is expensed over the vesting terms. For the six month ending June 30, 2013, the Company recognized $800 of expense. As of June 30, 2013, options to purchase 10,000 shares of common stock are still outstanding.

In May 2013, the board of directors approved a grant to an employee of an option to purchase up to 100,000 shares of common stock at a purchase price of $1.00 per share. Using the Black-Scholes Option Pricing Formula, the option was valued at $80,824, fair value. The option expires in 10 years with 25,000 vesting August 1, 2013, October 1, 2013 and quarterly thereafter. The option is expensed over the vesting terms. For the six month ending June 30, 2013, the Company recognized $11,809 of expense. As of June 30, 2013, options to purchase 100,000 shares of common stock are still outstanding.

During June 2009, the Company issued a warrant to purchase 464,000 shares of common stock at a purchase price of $0.34 per share for accounting services rendered. The warrant was valued at $391,342 using the Black-Scholes Option Pricing Formula, vesting 46,400 immediately and the remaining on equal monthly installments of 23,200 over the next eighteen months. The warrant expires in 5 years. The expense is being recognized based on service terms of the agreement over a twenty two month period. The expense recognized during 2010 and 2009 is $213,459 and $177,883. In April 2010, the warrant was partially exercised to purchase 10,000 shares of common stock for proceeds of $3,450. In February 2012, the warrant was partially exercised to purchase 20,000 shares of common stock for proceeds of $6,900. In June 2013, the warrant was partially exercised to purchase 20,000 shares of common stock for proceeds of $6,900. As of June 30, 2013, warrants to purchase 414,000 shares of common stock are still outstanding.

In August 2011, the board of directors approved a grant to a new employee of an option to purchase up to 150,000 shares of common stock at a purchase price of $1.01 per share. Using the Black-Scholes Option Pricing Formula, the option was valued at $123,241, fair value. The option expires in 5 years and vests in equal quarterly installments of 12,500 over the next three years beginning November 1, 2011. The expense recognized during 2012 and 2011 is $41,156 and $17,204. For the six month ending June 30, 2013, the Company recognized $20,353 of expense. As of June 30, 2013, options to purchase 150,000 shares of common stock are still outstanding. In August 2013, options to purchase 62,500 shares of common stock forfeited.

In August 2012, the board of directors approved a grant to a new employee of an option to purchase up to 50,000 shares of common stock at a purchase price of $0.93 per share. Using the Black-Scholes Option Pricing Formula, the option was valued at $37,486, fair value. The option expires in 5 years with 6,250 vesting every three months from date of grant. The option is expensed over the vesting terms. For the year ending December 31, 2012, the Company recognized $7,137 of expense. For the six month ending June 30, 2013, the Company recognized $9,295 of expense. As of June 30, 2013, options to purchase 50,000 shares of common stock are still outstanding. In July 2013, the option to purchase 31,250 shares of common stock forfeited.

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2013 AND 2012

NOTE 7 – STOCK BASED COMPENSATION

The Company uses the Black-Scholes option pricing model to calculate the grant-date fair value of an award, with the following assumptions for 2013: no dividend yield, expected volatility, based on the Company’s historical volatility, 111% to 113%, risk-free interest rate 0.94% to 1.86% and expected option life of five to ten years in 2013.

As of June 30, 2013, there was $545,282 of unrecognized compensation expense related to non-vested market-based share awards that is expected to be recognized through June 2015.

The following tables summarize all stock option and warrant activity of the Company during the three months ended June 30, 2013:

	Non-Qualified Stock Options and Warrants Outstanding and Exercisable		
	Number of Shares	Exercise Price	Weighted Average Exercise Price
Outstanding, December 31, 2012	8,773,500	$0.25 - $1.75	$ 1.13
Granted	185,000	$1.00 - $1.16	$ 1.07
Expired			
Forfeited	(343,750)	$0.73 - $1.25	$ 0.95
Exercised	(32,500)	$0.345 - $1.25	$ 0.69
Outstanding, June 30, 2013	8,582,250	$0.25 - $1.75	$ 1.14
Exercisable, June 30, 2013	7,778,503	$0.25 - $1.75	$ 1.16

	Non-Qualified Stock Options and Warrants Outstanding		
Range of Exercise Prices	Number Outstanding Currently Exercisable at June 30, 2013	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price of Options and Warrants Currently Exercisable

$0.25 - $1.75	7,778,503	2.51 Years	$1.16

LIGHTWAVE LOGIC, INC.
(A Development Stage Company)
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2013 AND 2012

NOTE 8 – RELATED PARTY

At June 30, 2013 the Company has accrued salaries to an officer and two beneficial owners of $46,838.

NOTE 9 – SUBSEQUENT EVENTS

During July 2013, the Company issued a warrant to purchase 100,000 shares of common stock at a purchase price of $0.90 per share for accounting services rendered commencing July 1, 2013. The warrant was valued at $48,915 using the Black-Scholes Option Pricing Formula, vesting over the next twelve months with 8,333 vesting each month for the first eleven months and 8,337 vesting the twelfth month from date of grant. The warrant expires in five years. The expense is being recognized based on service terms of the agreement over a twelve month period.

Forward-Looking Statements

This report on Form 10-Q contains forward-looking statements. Forward-looking statements involve risks and uncertainties, such as statements about our plans, objectives, expectations, assumptions or future events. In some cases, you can identify forward-looking statements by terminology such as “anticipate,” “estimate,” “plan,” “project,” “continuing,” “ongoing,” “expect,” “we believe,” “we intend,” “may,” “should,” “will,” “could” and similar expressio uncertainty or an action that may, will or is expected to occur in the future. These statements involve estimates, assumptions, known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from any future results, performances or achievements expressed or implied by the forward-looking statements. You should not place undue reliance on these forward-looking statements.

Factors that that are known to us that could cause a different result than projected by the forward-looking statement, include, but are not limited to: lack of available funding; general economic and business conditions; competition from third parties; intellectual property rights of third parties; regulatory constraints; changes in technology and methods of marketing; delays in completing various engineering and manufacturing programs; changes in customer order patterns; changes in product mix; success in technological advances and delivering technological innovations; shortages in components; production delays due to performance quality issues with outsourced components; those events and factors described by us in Item 1.A “Risk Factors” in our most recent Annual Report on Form 10-K; other risks to which our Company is subject; other factors beyond the Company's control.

Any forward-looking statement made by us in this report on Form 10-Q is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

Item 2 Management's Discussion and Analysis of Financial Condition and Results of Operations

The following management’s discussion and analysis of financial condition and results of operations provides information that management believes is relevant to an assessment and understanding of our plans and financial condition. The following selected financial information is derived from our historical financial statements and should be read in conjunction with such financial statements and notes thereto set forth elsewhere herein and the "Forward-Looking Statements" explanation included herein.

Overview

Lightwave Logic, Inc. (then known as Eastern Idaho Internet Service, Inc.) was organized under the laws of the State of Nevada in 1997, where we engaged in the business of marketing Internet services until June 30, 1998 when our operations were discontinued. We were then inactive until we acquired PSI-TEC Corporation as our wholly owned subsidiary on July 14, 2004, at which time our name was changed to PSI-TEC Holdings, Inc. On October 20, 2006, we completed a parent-subsidiary merger with PSI-TEC Corporation whereby we were the surviving corporation of the merger, and our name was changed to Third-Order Nanotechnologies, Inc. On March 10, 2008, we changed our name to Lightwave Logic, Inc. to better suit our strategic business plan and to facilitate stockholder recognition of our Company and our business. Unless the context otherwise requires, all references to the "Company," "we," "our" or "us" and other similar terms means Lightwave Logic, Inc., a Nevada corporation.

We are a development stage, organic nonlinear materials and electro-optical device company. Our primary area of expertise is the chemical synthesis of chromophore dyes used in the development of organic Application Specific Electro-Optic Polymers (ASEOP) and Organic Non-Linear All-Optical Polymers (NLAOP) that have high electro-optic and optical activity. Both types of materials are thermally and photo-chemically stable, which we believe could have utility across a broad range of applications in devices that address markets like, telecommunication, data communications, high-speed computing and photovoltaic cells. Secondarily, the company is developing proprietary electro-optical and all-optical devices utilizing the advanced capabilities of our materials for the application in the fields mentioned above.

In order to transmit digital information at extremely high-speeds (wide bandwidth) over the Internet, it is necessary to convert the electrical signals produced by a computer into optical signals for transmission over long-distance fiber-optic cable. Molecularly engineered materials known as electro-optic polymers when designed into optical devices perform the actual conversion of an electrical signal to an optical signal.

We are currently developing electro-optic polymers that promise performance many times faster than any technology currently available and that have unprecedented thermal stability. High-performance electro-optic materials produced by our Company have demonstrated stability as high as 350 degrees Celsius. Stability above 250 degrees Celsius is necessary for vertical integration into many semi-conductor production lines. In December 2011 one of our non-linear optical polymers, Perkinamine IndigoTM demonstrated an unusually high electro-optical effect of greater than 250 picometers per volt on 1.5 micron films with excellent thermal and photo stability. Independent research laboratories at Photon-X and The University of Colorado confirmed these characteristics. We continued our development program on Perkinamine IndigoTM to better understand the properties that gave us the results reported in December 2011. More recent measurements have shown an electro-optical effect closer to 100 picometers per volt in a 500 nm thin films. We are continuing to perform development work to better understand these results.

Our non-linear all optical polymers have demonstrated resonantly enhanced Third-order properties about 2,630 times larger than fused silica, which means that they are very photo-optically active in the absence of an RF layer. In this way they differ from our electro-optical polymers and are considered more advanced next-generation materials.

Our revenue model relies substantially on the assumption that we will be able to successfully develop non-linear polymer materials and photonic device products, which will use non-linear all-optical and electro-optic polymers for applications within the industries described below. When appropriate, we intend to create specific materials for each of these applications and use our proprietary knowledge base to continue to enhance its discoveries.

- telecommunications/data communications
- backplane optical interconnects
- cloud computing and data centers
- photovoltaic cells
- medical applications
- satellite reconnaissance
- navigation systems
- radar applications
- optical filters
- special light modulators
- all-optical transistors
- entertainment

To be successful, we must, among other things:

- Develop and maintain collaborative relationships with strategic partners;
- Continue to expand our research and development efforts for our products;
- Develop and continue to improve on our manufacturing processes and maintain stringent quality controls;
- Produce commercial quantities of our products at commercially acceptable prices;
- Rapidly respond to technological advancements;
- Attract, retain and motivate qualified personnel; and
- Obtain and retain effective intellectual property protection for our products and technology.

We believe that Moore's Law (a principle which states the number of transistors on a silicon chip doubles approximately every eighteen months) will create markets for our high-performance electro-optic materials and photonic device products.

Plan of Operation

Since inception, we have been engaged primarily in the research and development of our polymer materials technologies and potential photonic device products. We are devoting significant resources to engineer next-generation electro-optic polymers for future applications to be utilized by electro-optic device manufacturers, such as telecommunications component and systems manufacturers, networking and switching suppliers, semiconductor companies, aerospace companies, government agencies and internal device development. We expect to continue to develop products that we intend to introduce to these rapidly changing markets and to seek to identify new markets. We expect to continue to make significant operating and capital expenditures for research and development activities.

As we move from a development stage company to a product supplier, we expect that our financial condition and results of operations will undergo substantial change. In particular, we expect to record both revenue and expense from product sales, to incur increased costs for sales and marketing and to increase general and administrative expense. Accordingly, the financial condition and results of operations reflected in our historical financial statements are not expected to be indicative of our future financial condition and results of operations.

On September 25, 2006 we obtained independent laboratory results that confirmed the thermal stability of our PerkinamineTM electro-optic materials. Thermal stability as high as 350 degrees Celsius was confirmed, significantly exceeding many other then commercially available high performance electro-optic materials, such as CLD-1 that exhibits thermal degradation in the range of 250 degrees Celsius to 275 degrees Celsius. This high temperature stability of our materials eliminates a major obstacle to vertical integration of electro-optic polymers into standard microelectronic manufacturing processes (e.g. wave/vapor-phase soldering) where thermal stability of at least 300 degrees Celsius is required. In independent laboratory tests, ten-percent material degradation, a common evaluation of overall thermal stability, did not occur until our PerkinamineTM materials base was exposed to temperatures as high as 350 degrees Celsius, as determined by Thermo-Gravimetric Analysis (TGA). The test results supported our Company's progress to introduce our materials into commercial applications such as optical interconnections, high-speed telecom and datacom modulators, and military/aerospace components.

On September 26, 2006, we were awarded the 2006 Electro-Optic Materials Technology Innovation of the Year Award by Frost & Sullivan. Frost & Sullivan's Technology Innovation of the Year Award is bestowed upon candidates whose original research has resulted in innovations that have, or are expected to bring, significant contributions to multiple industries in terms of adoption, change, and competitive posture. This award recognizes the quality and depth of our Company's research and development program as well as the vision and risk-taking that enabled us to undertake such an endeavor.

In July 2007, our Company developed an innovative process to integrate our unique architecture into our anticipated commercial devices, whereby dendritic spacer systems are attached to its core chromophore. In the event we are successful in developing a commercially viable product, we believe these dendrimers will reduce the cost of manufacturing materials and reduce the cost and complexity of tailoring the material to specific customer requirements.

In March 2008, we commenced production of our first prototype photonic chip, which we delivered to Photon-X, LLC to fabricate a prototype polymer optical modulator and measure its technical properties. In June 2009 we released test results conducted by Dr. C.C. Teng that re-confirmed our previous test results.

In August 2009, Photon-X, LLC commenced a compatibility study, process sequences, and fabricated wafers/chips containing arrays of phase modulators. The first one hundred plus modulators (bench top devices) were completed at the end of October 2009, and were successfully characterized for insertion loss, Vpi, modulation dynamic range and initial frequency response in March 2010. The multi-step manufacturing process we utilized to fabricate our modulators involved exposing our proprietary PerkinamineTM materials to extreme conditions that is typically found in standard commercial manufacturing settings. Our step-by-step analysis throughout the fabrication process demonstrated to us that our PerkinamineTM materials could successfully withstand each step of the fabrication process without damage.

In August 2009, we retained Perdix, Inc. in Boulder, Colorado to help us identify and build prototype products for high growth potential target markets in fiber optic telecommunications systems. During October 2009, we initiated the development and production of our prototype amplitude modulator, which can ultimately be assembled into 1- and 2- dimensional arrays that are useful for optical computing applications, such as encryption and pattern recognition. We expected our initial prototype amplitude modulator to be completed by the end of the second quarter 2010. We continued to work on this device throughout 2010 and discovered its design had limitations so we terminated the program to take a different design approach. We embarked on the new design approach in 2011 with another partner, Boulder Nonlinear Systems (BNS). A feasibility study with the new design partner was started in late 2011. This research and development program continued through 2012 into the first half of 2013, and it is expected to be completed by the end of the third quarter of 2013. We expect the results of this study will guide us on how to better design our prototype spatial light modulator.

In December 2009, we filed our sixth patent application. The provisional application covers stable free radical chromophores for use in Non-Linear optical applications. The new polymeric electro-optic material has enormous potential in spatial light modulation and all optical signal processing (light switching light).

In March 2010, we successfully concluded the electrical and optical performance testing stage of our proof of principle prototype phase modulator and began application engineering of our technology in customer design environments. The Company is working directly with interested large system suppliers to attempt to engineer specific individual electro-optic materials in support of their proprietary device designs, which would be implemented in next generation products.

In October of 2010, we completed the concept stage of a novel design for an advanced optical computing application and moved forward into the design stage with Celestech, Inc. of Chantilly, Virginia. This application is presently on hold while Celestech continues to engage its customer on its schedule. Additionally, we are working on three other applications with Celestech, two of which are in white paper design stage. Development of these applications continued through 2012 and into 2013. If these projects continue to move forward, they will incorporate one or more of our Company’s advanced electro-optical polymer materials.

In October of 2010, we announced the results of testing performed by Lehigh University that demonstrated the Third-order non-linear properties of our proprietary molecules in the Perkinamine NRTM chromophore class. Lehigh University determined that the material was 100 times stronger than the highest off-resonance small molecule currently known. They also determined that it was 2,600 times more powerful than fused silica and demonstrated extremely fast (less than 1 picosecond) photo-induced non-linear response that would be capable of modulation at a rate of 1 THz (terahertz). Additional testing at Lehigh University of the Company’s other Perkinamine class of materials demonstrated Third-order non-linear properties, which may have utility in all optical switches.

In February and April 2011, respectively, the United States Patent Office granted our Company two patents: US Patent No. 7,894,695 covering our Tricyclic Spacer System for Non-Linear Optical Devices and US Patent No. 7,919,619 for Heterocyclical Chromophore Architectures directed to our PerkinamineTM chromophores. These composition of matter patents taken together protect the core of our electro-optical materials portfolio.

In March 2011, we entered into a research and development agreement with the City University of New York's ("CUNY") Laboratory for Nano Micro Photonics (LaNMP) to develop Third-order non-linear devices. The combination of LaNMP's device capabilities together with our materials expertise should accelerate the development of all-optical devices. The agreement ran through the end of 2011. The goal of the project was to fabricate and test slot waveguides embedded with two types of nonlinear optical polymers obtained from our Company. These two polymers were PerkinamineTM and Perkinamine NRTM. In CUNY's final report it showed they successfully demonstrated that the Perkinamine and Perkinamine NR survived their 170o C processing temperature without degradation. According to their report, they were successful in one processing run wherein they showed the possibility to realize waveguides with very smooth sidewalls. Reflectivity measurements carried out under optical pumping showed phase shift in the PerkinamineTM material. We are continuing research in this area with the University of Colorado, Boulder.

In March 2011 the City University of New York's Laboratory for Nano Micro Photonics (LaNMP) fabricated our first-ever all optical waveguides using PerkinamineTM and Perkinamine NRTM chromophores. It is anticipated that LaNMP could use this device architecture to develop various all-optical devices including an all-optical transistor. This effort, starting with an all-optical switch, is being continued at the University of Colorado, Boulder through an agreement entered into in January 2013.

In December 2011, we announced the discovery of a new material named Perkinamine IndigoTM. We believe this represents a major advancement in the field of organic nonlinear optical materials. The material demonstrated an unusually high electro-optical effect of greater than 250 picometers per volt with excellent thermal and photo stability. Independent research laboratories at Photon-X and The University of Colorado confirmed these characteristics. We do, however, have to do a complete characterization of these materials to fully understand what material properties are causing these results before any of our partners will move forward with this material. The potential large system supplier we are working with will be characterizing the material at their location using their proprietary devices while we continue our work with the University of Colorado, Boulder. In order to further characterize our Perkinamine class of materials, including Perkinamine IndigoTM, the Company has developed Mach-Zehnder interferometry and standard Teng-Man test set-ups in its own facilities. The Company's optical lab is testing and measuring the electro-optic coefficent of our materials.

In June 2012 we opened a new internal research laboratory facility in Newark, Delaware in the Delaware Technology Park, near the University of Delaware. This new lab facility enables us to synthesize and test our materials in the same facility and will help us accelerate our development efforts. It is equipped with state of the art equipment necessary to expand our ability to conduct synthetic chemistry in much more tightly controlled conditions. Additionally, we have equipped a separate advanced optical laboratory at the same location where the necessary testing of material candidates will be performed as they emerge from our new synthesis laboratory.

In July 2012 we entered into an agreement with The University of Colorado, Boulder to conduct analytical testing and to carry out studies that will give a better understanding of the properties of a new class of composite organic electro-optic materials. This class of materials is our Perkinamine IndigoTM. The processing and measurements are to be carried out primarily at the Guided Wave Optics Laboratory (GWOL). The work is being done in close collaboration with Company personnel.

In September 2012 the United States Patent Office granted our Company U.S. Patent No. 8,269,004, entitled Heterocyclical Anti-Aromatic Chromophore Architectures. This patent protects the unique molecular structures that give our chromophores the thermal stability necessary to withstand CMOS processing temperatures without compromising electro-optical effects.

In November 2012 Australia granted our Company Australian Patent No. AU2005302506 entitled Heterocyclical Chromophore Architectures. This patent protects the unique molecular structures that give our chromophores the thermal stability necessary to withstand CMOS processing temperatures without compromising electro-optical effects.

In February 2013 we delivered to a potential large system supplier customer prototype devices that were coated with our advanced organic nonlinear electro-optical polymer, Perkinamine IndigoTM. Tests conducted by the University of Colorado, Boulder on coupons coated with the material demonstrated consistent R33 measurements from 100-125 picometers per volt, which exceeded the potential large system supplier customer's stated requirements.

In March 2013 we entered into a product development contractor agreement with EM Photonics (EMP) of Newark, Delaware to fabricate and test waveguides and phase modulators during an initial development phase using existing EMP polymer modulator design and processes. In June 2013 we consolidated the EMP design program into our University of Colorado, Boulder (UCB) program after we fabricated structures with UCB that will be used as the basic building blocks of our Integrated Optical Device effort for the construction of both our advanced telecom modulator and data communications transceiver.

In April 2013 our potential large system supplier customer informed us that their preliminary testing results on the prototype devices coated with Perkinamine Indigo™ that we delivered to them in February 2013 demonstrated several of the key performance parameters that they desired. There are still additional tests that need to be completed. We are working with our potential customer utilizing our Perkinamine Indigo™ chromophore in a number of host polymers and will evaluate these polymers in conjunction with our chromophores for a specific performance attributes for their application.

In April 2013 Japan granted our Company Japanese Patent No. 5241234 entitled Heterocyclical Chromophore Architectures. This patent protects the unique molecular structures that give our chromophores the thermal stability necessary to withstand CMOS processing temperatures without compromising electro-optical effects.

We ultimately intend to use our next-generation non-linear all-optical and electro-optic polymers for future applications vital to the following industries. We expect to create specific materials for each of these applications as appropriate:

- telecommunications/data communications
- backplane optical interconnects
- cloud computing and data centers
- photovoltaic cells
- medical applications
- satellite reconnaissance
- navigation systems
- radar applications
- optical filters
- special light modulators
- all-optical transistors and
- entertainment

In an effort to maximize our future revenue stream from our non-linear all-optical and electro-optic polymer products, our business model anticipates that our revenue stream will be derived from one or some combination of the following: (i) technology licensing for specific product applications; (ii) joint venture relationships with significant industry leaders; or (iii) the production and direct sale of our own electro-optic device components. Our objective is to be a leading provider of proprietary technology and know-how in the photonic device markets. In order to meet this objective, subject to successful testing of our technology and having available financial resources, we intend to:

- Develop non-linear all-optical and electro-optic polymers and photonic devices;
- Continue to develop proprietary intellectual property;
- Streamline our product development process;
- Develop a comprehensive marketing plan;
- Maintain/develop strategic relationships with government agencies, private firms, and academic institutions; and
- Continue to attract and retain high level science and technology personnel to our Company.

Our Proprietary Products in Development

As part of a two-pronged marketing strategy, our Company is developing several devices, which are in various stages of development that utilize our organic nonlinear optical materials.

They include:

Telecommunications Modulator

We have recently begun a second-generation design of a unique telecommunications modulator incorporating our newly developed material PerkinamineTM Indigo. To date, we have completed phase one of the second-generation design, and the first set of optical structures that will be used as the basic building blocks of our unique telecommunications modulator. We intend to have a working bench-top prototype sometime during 2013 followed by fully packaged modulators for commercial marketing. We anticipate this modulator will be able to exceed the performance of existing legacy modulators by an order of magnitude, and will allow for improvements in the form of reduced power consumption and reduced device cost.

Spatial Light Modulator

We have a development program to develop a Spatial Light Modulator with an outside manufacturer, Boulder Nonlinear Systems (BNS) utilizing certain PerkinamineTM chromophores. A spatial modulator is a form of optical computer that can perform various advanced tasks, such as object and facial recognition, by using advanced mathematical calculations known as Fourier Transforms. Our organic nonlinear optical materials can potentially produce update rates of more than a million times per second, which is a significant improvement in processing speed over existing Liquid Crystal Display technology that updates at only 30 to 60 times per second.

Optical Filter

We are in preliminary design and fabrication phases of development of an optical filter using our proprietary PerkinamineTM and Perkinamine NRTM materials within a SiNx photonics platform. A tunable optical filter is ideal for any application requiring tuning over a wide range of wavelengths. Initial work has been done in collaboration with City University of New York, but limitations in their process capabilities have led us to seek alternate fabrication facilities, which are underway at this time.

All-Optical Switch

An all-optical switch is one that enables signals in optical fibers or networks to be selectively switched from one fiber or circuit to another. Many device designs have been developed and commercialized in today’s telecom networks to effect optical switching by using mechanical or electrical control elements to accomplish the switching event. Future networks will require all-optical switches that can be more rapidly activated with a low energy and short duration optical (light) control pulse. We are in early development of an all-optical switch in collaboration with the University of Colorado, Boulder under a sponsored research agreement.

Multi-Channel Optical Modem

We are in early feasibility study of a multi-wavelength optical modem that will enable an order of magnitude increase in Internet capacity over legacy fiber.

Additionally, we must create an infrastructure, including operational and financial systems, and related internal controls, and recruit qualified personnel. Failure to do so could adversely affect our ability to support our operations.

We have incurred substantial net losses since inception. We have satisfied our capital requirements since inception primarily through the issuance and sale of our common stock. During 2004 we raised approximately $529,000 from the issuance of convertible promissory notes, of which $30,000 was converted into common stock of the Company during 2004 and the remaining $499,000 converted in 2005. Also, during 2005, we raised an aggregate of $1,000,000 from the private sale of our common stock. During 2006 we raised approximately $425,000 from the private sale of our common stock, of which $200,000 was rescinded during 2007. During 2007 we raised approximately $2,301,524 from the private sale of our common stock. During 2008 we raised approximately $414,000 from the private sale of our common stock and $375,270 from the exercise of outstanding warrants. Through June 30, 2009, we raised approximately $855,000 from the private sale of our common stock. We also issued shares of our common stock and warrants to purchase shares of our common stock in exchange for services rendered to our Company, including professional services. During October 2009 we obtained proceeds of $455,000 from the exercise of outstanding warrants. During 2010 we raised $1,500,000 from the private sale of our common stock and $539,000 from the exercise of outstanding options and warrants. We also issued shares of our common stock and warrants to purchase shares of our common stock in exchange for services rendered to our Company.

During 2011 we raised $1,000,000 from the private sale of our common stock and warrants to purchase our common stock. We also issued shares of our common stock and warrants to purchase shares of our common stock in exchange for services rendered to our Company.

Additionally, in May 2011, we signed an agreement with Lincoln Park Capital Fund, LLC (“Lincoln Park”) to sell up to $20 million of common stock. Under the agreement subject to certain conditions and at our sole discretion, Lincoln Park has committed to invest up to $20 million in our common stock over a 30-month period. We filed a registration statement with the U.S. Securities and Exchange Commission covering the resale of the shares that may be issued to Lincoln Park. Lincoln Park is obligated to make purchases as we direct in accordance with the agreement, which may be terminated by us at any time, without cost or penalty. Sales of shares are made in specified amounts and at prices that are based upon the market prices of our common stock immediately preceding the sales to Lincoln Park. The agreement expires in December 2013.

During 2011 Lincoln Park purchased 185,185 shares of common stock for proceeds of $200,000. During 2012 Lincoln Park purchased 3,539,100 shares of common stock for proceeds of $4,849,999. Also, during 2012, we raised $447,700 from the exercise of options and warrants. For the six months ending June 30, 2013, Lincoln Park purchased 1,628,386 shares of common stock for proceeds of $1,800,001.

In June 2013 we signed a new agreement with Lincoln Park to sell up to $20 million of common stock. Under the agreement subject to certain conditions and at our sole discretion, Lincoln Park has committed to invest up to $20 million in the Company's common stock over a 30-month period. We are preparing to file a registration statement with the U.S. Securities and Exchange Commission covering the resale of the shares that may be issued to Lincoln Park. Sales of shares will be made in specified amounts and at prices that are based upon the market prices of our Company's common stock.

Results of Operations

Comparison of three months ended June 30, 2013 to three months ended June 30, 2012

Revenues

As a development stage company, we had no revenues during the three months ended June 30, 2013 and 2012. The Company is in various stages of material evaluation and product development with potential customers and expects the next revenue stream to be in prototype devices, application and non-recurring engineering charges and sale of electro-optic polymer materials prior to moving into production.

Operating Expenses

Our operating expenses were $964,502 and $1,009,113 for the three months ended June 30, 2013 and 2012, respectively, for a decrease of $44,611. This is primarily due to increases in salaries and wages, laboratory materials and supplies, laboratory rent, depreciation, laboratory electro-optic device prototype, development and outsourced testing expenses, insurance expense, professional fees, internet and website design, accounting and conferences offset by decreases in non-cash stock option and warrant amortization and legal expenses.

Included in our operating expenses for the three months ended June 30, 2013 was $531,116 for research and development expenses compared to $455,253 for the three months ended June 30, 2012, for an increase of $75,863. This is primarily due to increases in salaries and wages, laboratory materials and supplies, laboratory rent, depreciation and laboratory electro-optic device prototype, development and outsourced testing expenses offset by a decrease in non-cash stock option and warrant amortization.

Research and development expenses currently consist primarily of compensation for employees engaged in internal research, product and application development activities; laboratory operations, outsourced material testing and prototype electro-optic device design, development and processing work; customer testing; fees; costs; and related operating expenses.

We expect to continue to incur substantial research and development expense to develop and commercialize our electro-optic material platform. These expenses will increase as a result of accelerated development effort to support commercialization of our non-linear optical polymer materials technology; outsourcing work to build device prototypes; expanding and equipping in-house laboratories; hiring additional technical and support personnel; engaging a senior technical advisor; pursuing other potential business opportunities and collaborations; customer testing and evaluation; and incurring related operating expenses.

Wages and salaries increased $70,712 from $134,148 for the three months ended June 30, 2012 to $204,860 for the three months ended June 30, 2013 primarily due to additional employees hired to perform in-house material testing and material and device development in the Company's new lab facility. Accordingly laboratory materials and supplies increased $17,918 from $6,142 for the three months ended June 30, 2012 to $24,060 for the three months ended June 30, 2013. Also, laboratory electro-optic device prototype, development and outsourced testing expenses increased $48,397 to $109,737 for the three months ended June 30, 2013 from $61,340 for the three months ended June 30, 2012 as the Company expands its prototype development efforts.

Non-cash stock option amortization decreased $95,604 from $191,956 for the three months ended June 30, 2012 to $96,352 for the three months ended June 30, 2013.

During the second half of 2012, the Company leased additional laboratory space and rent expense increased accordingly $6,538 from $12,960 for the three months ended June 30, 2012 to $19,498 for the three months ended June 30, 2013. Depreciation expense increased $19,743 from $9,282 for the three months ended June 30, 2012 to $29,025 for the three months ended June 30, 2013 primarily due to the additional equipment purchased for the new lab facility.

General and administrative expense consists primarily of compensation and support costs for management staff, and for other general and administrative costs, including executive, sales and marketing, investor relations, accounting and finance, legal, consulting and other operating expenses.

General and administrative expenses decreased $120,474 to $433,386 for the three months ended June 30, 2013 compared to $553,860 for the three months ended June 30, 2012. The decrease is due primarily to decreases in non-cash amortization of options and warrants and legal expense offset by increases in wages and salaries, insurance expense, professional fees, internet and website design, accounting and conferences.

Non-cash stock compensation decreased by $170,779 to $89,163 for the three months ended June 30, 2013 compared to $259,942 for the three months ended June 30, 2012.

Legal fees decreased $17,258 to $51,438 for the three months ended June 30, 2013 compared to $68,696 for the three months ended June 30, 2012.

Wages and salaries increased $13,193 to $127,395 for the three months ended June 30, 2013 from $114,202 for the three months ended June 30, 2012.

Insurance increased $21,229 from $31,523 for the three months ended June 30, 2012 to $52,752 for the three months ended June 30, 2013.

Conferences increased $8,115 to $8,115 for the three months ended June 30, 2013 compared to $0 for the three months ended June 30, 2012.

Internet and website expenses increased $5,786 to $9,208 for the three months ended June 30, 2013 compared to $3,422 for the three months ended June 30, 2012.

Professional fees increased $5,000 to $5,000 for the three months ended June 30, 2013 compared to $0 for the three months ended June 30, 2012.

Accounting fees increased $3,990 to $24,090 for the three months ended June 30, 2013 compared to $20,100 for the three months ended June 30, 2012 primarily for the implementation of an employee stock option software program for interactive option exercises by employees and directors under the 2007 Employee Stock Plan.

We expect general and administrative expense to increase in future periods as we increase the level of corporate and administrative activity, including increases associated with our operation as a public company; and significantly increase expenditures related to the future production and sales of our products.

Other Income (Expense)

Other income (expense) increased $166,170 to ($184,661) for the three months ended June 30, 2013 from ($18,491) for the three months ended June 30, 2012, relating primarily to the commitment fee associated with the resale of shares to an institutional investor of a new agreement for resale during the corresponding three-month period.

Net Loss

Net loss was $1,149,163 and $1,027,604 for the three months ended June 30, 2013 and 2012, respectively, for an increase of $121,559, primarily due to an increase in salaries and wages, laboratory materials and supplies, laboratory rent, depreciation, laboratory electro-optic device prototype, development and outsourced testing expenses, commitment fee to institutional investor, insurance expense, professional fees, internet and website design, accounting and conferences offset by decreases in non-cash stock option and warrant amortization and legal expenses.

Comparison of six months ended June 30, 2013 to six months ended June 30, 2012

Revenues

As a development stage company, we had no revenues during the six months ended June 30, 2013 and 2012. The Company is in various stages of material evaluation and product development with potential customers and expects the next revenue stream to be in prototype devices, application and non-recurring engineering charges and sale of electro-optic polymer materials prior to moving into production.

Operating Expenses

Our operating expenses were $1,867,502 and $1,778,712 for the six months ended June 30, 2013 and 2012, respectively, for an increase of $88,790. This increase in operating expenses was due primarily to increases in salaries and wages, laboratory lease rent, depreciation, laboratory materials and supplies, insurance expense, accounting, and conferences offset by decreases in laboratory electro-optic device prototype, development and outsourced testing expenses, non-cash stock option and warrant amortization and legal expenses.

Included in our operating expenses for the six months ended June 30, 2013 was $986,498 for research and development expenses compared to $927,662 for the six months ended June 30, 2012, for an increase of $58,836. This is primarily due to increases in salaries and wages, laboratory materials and supplies, laboratory rent and depreciation offset by decreases in laboratory electro-optic device prototype, development and outsourced testing expenses and non-cash stock option and warrant amortization.

Research and development expenses currently consist primarily of compensation for employees engaged in internal research, product and application development activities; laboratory operations, outsourced material testing and prototype electro-optic device design, development and processing work; customer testing; fees; costs; and related operating expenses.

We expect to continue to incur substantial research and development expense to develop and commercialize our electro-optic material platform. These expenses will increase as a result of accelerated development effort to support commercialization of our non-linear optical polymer materials technology; outsourcing work to build device prototypes; expanding and equipping in-house laboratories; hiring additional technical and support personnel; engaging a senior technical advisor; pursuing other potential business opportunities and collaborations; customer testing and evaluation; and incurring related operating expenses.

Wages and salaries increased $107,231 from $269,963 for the six months ended June 30, 2012 to $377,194 for the six months ended June 30, 2013 primarily due to additional employees hired to perform in-house material testing and material and device development in the Company's new lab facility. Accordingly laboratory materials and supplies increased $15,587 from $22,594 for the six months ended June 30, 2012 to $38,181 for the six months ended June 30, 2013. Also, laboratory electro-optic device prototype, development and outsourced testing expenses decreased $7,701, to $167,620 for the six months ended June 30, 2013 from $175,321 for the six months ended June 30, 2012.

Non-cash stock option amortization decreased $114,244 from $340,881 for the six months ended June 30, 2012 to $226,637 for the six months ended June 30, 2013.

During the second half of 2012, the Company leased additional laboratory space and rent expense increased accordingly $23,376 from $15,621 for the six months ended June 30, 2012 to $38,997 for the six months ended June 30, 2013. Depreciation expense increased $35,648 from $15,726 for the six months ended June 30, 2012 to $51,374 for the six months ended June 30, 2013 primarily due to the additional equipment purchased for the new lab facility.

General and administrative expense consists primarily of compensation and support costs for management staff, and for other general and administrative costs, including executive, sales and marketing, investor relations, accounting and finance, legal, consulting and other operating expenses.

General and administrative expenses increased $29,954 to $881,004 for the six months ended June 30, 2013 compared to $851,050 for the six months ended June 30, 2012. The increase is due primarily to increases in wages and salaries, insurance expense, accounting and conferences offset by decreases in non-cash amortization of options and warrants and legal expense.

In May 2012, the board of directors appointed its current Non-Executive Chairman of the board of directors as its Executive Chairman of the board of directors and Chief Executive Officer. As a result, wages and salaries increased $54,266 to $255,973 for the six months ended June 30, 2013 from $201,707 for the six months ended June 30, 2012.

Non-cash stock compensation decreased by $93,980 to $228,802 for the six months ended June 30, 2013 compared to $322,782 for the six months ended June 30, 2012.

Insurance increased $46,308 from $53,378 for the six months ended June 30, 2012 to $99,686 for the six months ended June 30, 2013.

Accounting fees increased $7,390 to $46,990 for the six months ended June 30, 2013 compared to $39,600 for the six months ended June 30, 2012 primarily for the implementation of an employee stock option software program for interactive option exercises by employees and directors under the 2007 Employee Stock Plan.

Conferences increased $8,445 to $9,060 for the six months ended June 30, 2013 compared to $615 for the six months ended June 30, 2012.

Legal fees decreased $8,186 to $89,272 for the six months ended June 30, 2013 compared to $97,458 for the six months ended June 30, 2012.

We expect general and administrative expense to increase in future periods as we increase the level of corporate and administrative activity, including increases associated with our operation as a public company; and significantly increase expenditures related to the future production and sales of our products.

Other Income (Expense)

Other income (expense) increased $83,894 to ($204,132) for the six months ended June 30, 2013 from ($120,238) for the six months ended June 30, 2012, relating primarily to the commitment fee associated with the resale of shares to an institutional investor of new agreement for resale during the corresponding six-month period.

Net Loss

Net loss was $2,071,634 and $1,898,950 for the six months ended June 30, 2013 and 2012, respectively, for an increase of $172,684, due primarily to increases in salaries and wages, laboratory lease rent, depreciation, laboratory materials and supplies, insurance expense, accounting, conferences and commitment fee to institutional investor offset by decreases in outsourced testing expenses, non-cash stock option and warrant amortization and legal expenses.

Significant Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates based upon historical experience and various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Our actual results may differ materially from these estimates.

We believe our significant accounting policies affect our more significant estimates and judgments used in the preparation of our financial statements. Our Annual Report on Form 10-K for the year ended December 31, 2012 contains a discussion of these significant accounting policies. There have been no significant changes in our significant accounting policies since December 31, 2012. See our Note 1 in our unaudited financial statements for the six months ended June 30, 2013, as set forth herein.

Liquidity and Capital Resources

During the six months ended June 30, 2013, net cash used in operating activities was $1,374,206 and net cash used in investing activities was $126,015, which was due primarily to the Company’s research and development activities and general and administrative expenditures. Net cash provided by financing activities for the six months ended June 30, 2013 was $1,822,525. At June 30, 2013, our cash and cash equivalents totaled $3,259,183, our assets totaled $4,282,153, our liabilities totaled $210,503, and we had stockholders' equity of $4,071,650.

Sources and Uses of Cash

Our future expenditures and capital requirements will depend on numerous factors, including: the progress of our research and development efforts; the rate at which we can, directly or through arrangements with original equipment manufacturers, introduce and sell products incorporating our polymer materials technology; the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights; market acceptance of our products and competing technological developments; and our ability to establish cooperative development, joint venture and licensing arrangements. We expect that we will incur approximately $3,000,000 of expenditures over the next 12 months. Our cash requirements are expected to increase at a rate consistent with the Company’s path to revenue growth as we expand our activities and operations with the objective of commercializing our electro-optic polymer technology during 2013. We continue to develop and test our next generation electro-optic and third-order material platform to support and cultivate potential customers, strategic partners and develop photonic devices. Management believes our initial revenue stream will be in prototype devices, application and non-recurring engineering charges, and material charges for specialty non-linear application prior to moving into full commercialization and production.

Our business does not presently generate the cash needed to finance our current and anticipated operations. Presently, our Company has a cash position of approximately $3,020,000; based upon our current cash position and expenditures of approximately $250,000 per month and no debt service, management believes we have sufficient funds currently to finance our operations through July 2014. We plan to continue obtaining additional financing, now and in the future, until such time that we can conduct profitable revenue-generating activities.

Such future sources of financing may include cash from equity offerings, exercise of stock options, warrants and proceeds from debt instruments; but we cannot assure you that such equity or borrowings will be available or, if available, will be at rates or prices acceptable to us.

In May 2011 we signed our stock purchase agreement with Lincoln Park whereby subject to certain conditions and at our sole discretion, Lincoln Park has committed to purchase up to $20 million of our common stock over a 30-month period. We registered for resale by Lincoln Park 10,000,000 shares of our common stock in June 2011. The stock purchase agreement expires in December 2013. In June 2013 we signed our new stock purchase agreement with Lincoln Park to sell up to $20 million of common stock whereby subject to certain conditions and at our sole discretion, Lincoln Park has committed to purchase up to $20 million of our common stock over a 30-month period. We are preparing to file a registration statement with the U.S. Securities and Exchange Commission covering the resale of the shares that may be issued to Lincoln Park pursuant to the new stock purchase agreement. Pursuant to both agreements, Lincoln Park is obligated to make purchases as the Company directs in accordance with the purchase agreements, which may be terminated by the Company at any time, without cost or penalty. Sales of shares will be made in specified amounts and at prices that are based upon the market prices of our Company's common stock immediately preceding the sales to Lincoln Park. We expect this financing to provide our Company with sufficient funds to maintain its operations for the foreseeable future. With the additional capital, we expect to achieve a level of revenues attractive enough to fulfill our development activities and adequate enough to support our business model for the foreseeable future. We cannot assure you that we will meet the conditions of the stock purchase agreement with Lincoln Park in order to obligate Lincoln Park to purchase our shares of common stock. In the event we fail to do so, and other adequate funds are not available to satisfy either short-term or long-term capital requirements, or if planned revenues are not generated, we may be required to substantially limit our operations. This limitation of operations may include reductions in capital expenditures and reductions in staff and discretionary costs.

There are no trading volume requirements or restrictions under the purchase agreement, and we will control the timing and amount of any sales of our common stock to Lincoln Park. Lincoln Park has no right to require any sales by us, but is obligated to make purchases from us as we direct in accordance with the purchase agreement. We can also accelerate the amount of common stock to be purchased under certain circumstances. There are no limitations on use of proceeds, financial or business covenants, restrictions on future funding, rights of first refusal, participation rights, penalties or liquidated damages in the purchase agreement. We may terminate the purchase agreement at any time, at our discretion, without any penalty or cost to us. Lincoln Park may not assign or transfer its rights and obligations under the purchase agreement.

We expect that our cash used in operations will increase during 2013 and beyond as a result of the following planned activities:

- The addition of management, sales, marketing, technical and other staff to our workforce;
- Increased spending for the expansion of our research and development efforts, including purchases of additional laboratory and production equipment;
- Increased spending in marketing as our products are introduced into the marketplace;
- Developing and maintaining collaborative relationships with strategic partners;
- Developing and improving our manufacturing processes and quality controls; and
- Increases in our general and administrative activities related to our operations as a reporting public company and related corporate compliance requirements.

Analysis of Cash Flows

For the six months ended June 30, 2013

Net cash used in operating activities was $1,374,206 for the six months ended June 30, 2013, primarily attributable to the net loss of $2,071,634 adjusted by $78,071 in warrants issued for services, $377,368 in options issued for services, $204,274 in common stock issued for services, $59,333 in depreciation expenses and patent amortization expenses, ($76,793) in prepaid expenses and $55,175 in accounts payable and accrued expenses. Net cash used in operating activities consisted of payments for research and development, legal, professional and consulting expenses, rent and other expenditures necessary to develop our business infrastructure.

Net cash used by investing activities was $126,015 for the six months ended June 30, 2013, consisting of $26,493 in cost for intangibles and $99,522 in asset additions primarily for the new lab facility.

Net cash provided by financing activities was $1,822,525 for the six months ended June 30, 2013 and consisted of $1,800,000 proceeds from resale of common stock to an institutional investor and $22,525 from the exercise of warrants.

Inflation and Seasonality

We do not believe that our operations are significantly impacted by inflation. Our business is not seasonal in nature.

Item 4 Controls and Procedures

Evaluation of Disclosure Controls and Procedures. The Company's management, with the participation of the Company's Principal Executive Officer and Principal Financial Officer, evaluated the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of June 30, 2013. Based on this evaluation, the Company's Principal Executive Officer and Principal Financial Officer concluded that, as of June 30, 2013 the Company's disclosure controls and procedures were effective, in that they provide reasonable assurance that information required to be disclosed by the Company in the reports that it files or submits under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, 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.

Changes in Internal Control Over Financial Reporting. There were no changes in our internal control over financial reporting during the quarter ended June 30, 2013 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 2 Unregistered Sales of Equity Securities and Use of Proceeds

Date	Security/Value
May 2013	Option grant - 10,000 shares of common stock at $1.03 per share issued for services. The option was valued at $9,574 using the Black-Scholes Option Pricing Formula.
May 2013	Option grant - 100,000 shares of common stock at $1.00 per share issued for services. The option was valued at $80,824 using the Black-Scholes Option Pricing Formula.
June 2013	Warrant exercise – 20,000 shares of common stock purchased at $0.345 for proceeds of $6,900.
June 2013	Common Stock – 200,000 shares of common stock for services valued at $170,000.

No underwriters were utilized and no commissions or fees were paid with respect to any of the above transactions. We relied on Section 4(2) of the Securities Act of 1933, as amended, since the transactions did not involve any public offering.

Item 6 Exhibits

The following exhibits are included herein:

Exhibit No.	Description of Exhibit
10.1	Purchase Agreement dated as of May 3, 2011, by and between the Company and Lincoln Park Capital Fund, LLC (incorporated by reference to our Form 8-K filed on May 6, 2011).
10.2	Registration Rights Agreement dated as of May 3, 2011, by and between the Company and Lincoln Park Capital Fund, LLC (incorporated by reference to our Form 8-K filed on May 6, 2011).
10.3	Purchase Agreement dated as of June 6, 2013, by and between the Company and Lincoln Park Capital Fund, LLC (incorporated by reference to our Form 8-K filed on June 10, 2013).
10.4	Registration Rights Agreement dated as of June 6, 2013, by and between the Company and Lincoln Park Capital Fund, LLC (incorporated by reference to our Form 8-K filed on June 10, 2013).
31.1	Certification pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, executed by the Principal Executive Officer of the Company.
31.2	Certification pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, executed by the Principal Financial Officer of the Company.
32.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, executed by the Principal Executive Officer of the Company.
32.2	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, executed by the Principal Financial Officer of the Company.
101	The following financial information from Lightwave Logic Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2013, formatted in XBRL (eXtensible Business Reporting Language): (i) Balance Sheets; (ii) Statements of Operations; (iii) Statement of Stockholders' Equity; (iv) Statements of Cash Flows; and (v) Notes to Financial Statements.

SIGNATURES

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

LIGHTWAVE LOGIC, INC.

Registrant

By: /s/ Thomas E. Zelibor
Thomas E. Zelibor,
Chief Executive Officer
(Principal Executive Officer)

Date: August 14, 2013

By: /s/ Thomas E. Zelibor
Thomas E. Zelibor,
Chief Executive Officer
(Principal Executive Officer)

Date: August 14, 2013

By: /s/ James S. Marcelli
James S. Marcelli,
President, Chief Operating Officer
(Principal Financial Officer)

Date: August 14, 2013