22nd Century Group, Inc.
Form 10-Q
August 05, 2013

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

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

For the Quarterly Period Ended June 30, 2013

¨ 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: 000-54111

22nd Century Group, Inc.

(Exact name of registrant as specified in its charter)

Nevada	**98-0468420**
(State or other jurisdiction of incorporation)	(IRS Employer Identification No.)

9530 Main Street, Clarence, New York 14031
(Address of principal executive offices)

(716) 270-1523

(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 Web site, if any, every Interactive Data 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.

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

As of July 31, 2013, there were 46,140,518 shares of common stock issued and outstanding.

22nd CENTURY GROUP, INC.

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22nd CENTURY GROUP INC. AND SUBSIDIARY

CONSOLIDATED BALANCE SHEETS

June 30, 2013 with Comparative Figures at December 31, 2012

	June 30, 2013 (unaudited)	December 31, 2012
ASSETS		
Current assets:		
Cash	$451,730	$188
Due from related party	39,469	36,969
Due from officers	7,471	3,578
Inventory	1,257,059	1,230,526
Prepaid expenses	32,846	10,044
Total current assets	1,788,575	1,281,305
Other assets:		
Patent and trademark costs, net	1,345,080	1,353,304
Office furniture and fixtures, net	27,804	6,030
Deferred debt issuance costs, net	-	4,232
Total other assets	1,372,884	1,363,566
Total assets	$3,161,459	$2,644,871
LIABILITIES AND SHAREHOLDERS' DEFICIT		
Current liabilities:		
Demand bank loan	$174,925	$174,925
Accounts payable	422,548	1,410,650
Accrued interest payable to related parties	9,739	3,567
Accrued expenses	329,854	503,002
Preferred stock dividend payable	93,361	-
Notes payable	1,050,013	617,000
Convertible notes, net of unamortized discount	198,367	1,893,804
Total current liabilities	2,278,807	4,602,948
Long term portion of notes payable	175,000	-
Total liabilities excluding warrant liability	2,453,807	4,602,948
Warrant liability	7,917,730	4,173,140
Total liabilities	10,371,537	8,776,088
Commitments and contingencies (Note 12)	-	-

Shareholders' deficit		
Capital stock authorized:		
10,000,000 preferred shares, $.00001 par value		
300,000,000 common shares, $.00001 par value		
Capital stock issued and outstanding:		
0 convertible preferred shares, $1,000 stated value, 10% cumulative (0 at December 31, 2012)	-	-
44,378,331 common shares (34,286,979 at December 31, 2012)	444	344
Capital in excess of par value	9,525,214	7,645,017
Accumulated deficit	(16,735,736)	(13,776,578)
Total shareholders' deficit	(7,210,078)	(6,131,217)
Total liabilities and shareholders' deficit	$3,161,459	$2,644,871

See accompany notes to consolidated financial statements.

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22nd CENTURY GROUP INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF OPERATIONS

Three Months Ended June 30, 2013 and 2012

(unaudited)

	June 30, 2013	June 30, 2012
Revenue	$-	$-
Operating expenses:		
Research and development	165,087	241,264
General and administrative	1,400,515	1,052,132
Sales and marketing costs	-	30,847
Amortization and depreciation	56,976	49,958
	1,622,578	1,374,201
Operating loss	(1,622,578)	(1,374,201)
Other income (expense)		
Warrant liability gain - net	1,258,502	1,875,399
Interest expense and amortization of debt discount and expense:		
Related parties	(5,610)	(55,052)
Other	(76,269)	(304,379)
	1,176,623	1,515,968
Net (loss) income attributed to common shareholders	(445,955)	141,767
Net (loss) income per common share - basic and diluted	$(0.01)	$0.00
Common shares used in basic earnings per share calculation	39,794,189	29,257,426

See accompany notes to consolidated financial statements.

22nd CENTURY GROUP INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF OPERATIONS

Six Months Ended June 30, 2013 and 2012

(unaudited)

	June 30, 2013	June 30, 2012
Revenue	$-	$-
Operating expenses:		
Research and development	355,835	328,998
General and administrative	2,548,647	1,361,922
Sales and marketing costs	-	34,682
Amortization and depreciation	109,600	95,916
	3,014,082	1,821,518
Operating loss	(3,014,082)	(1,821,518)
Other income (expense)		
Warrant liability gain - net	242,327	632,399
Interest expense and amortization of debt discount and expense:		
Related parties	(12,156)	(193,333)
Other	(175,247)	(599,994)
	54,924	(160,928)
Net loss	(2,959,158)	(1,982,446)
Net loss attributable to non-controlling interest	-	1,456
Net loss attributed to common shareholders	$(2,959,158)	$(1,980,990)
Loss per common share - basic and diluted	$(0.08)	$(0.07)
Common shares used in basic earnings per share calculation	38,059,566	27,991,393

See accompany notes to consolidated financial statements.

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22nd CENTURY GROUP INC. AND SUBSIDIARY

CONSOLIDATED STATEMENT OF SHAREHOLDERS' DEFICIT

Six Months Ended June 30, 2013

(unaudited)

	Preferred Shares Outstanding	Common Shares Outstanding	Par value of Preferred Shares	Par value of Common Shares	Contributed Capital	Accumulated Deficit	Shareholders' Deficit
Balance at December 31, 2012	-	34,286,979	$ -	$ 344	$7,645,017	$(13,776,578)	$(6,131,217)
Common stock issued upon exercise of Convertible Notes	-	2,035,720	-	20	(20)	-	-
Preferred stock issued in January 2013 private placement	2,500	416,666	-	4	(4)	-	-
Conversion of preferred stock to common stock	(2,500)	4,166,666	-	42	(42)	-	-
Exercise of warrants	-	982,300	-	9	35,058	-	35,067
Stock based compensation	-	2,490,000	-	25	1,936,906	-	1,936,931
Other contributed capital	-	-	-	-	1,660	-	1,660
Accrued dividends on preferreds stock	-	-	-	-	(93,361)	-	(93,361)
Net loss	-	-	-	-	-	(2,959,158)	(2,959,158)
Balance at June 30, 2013	-	44,378,331	-	444	9,525,214	(16,735,736)	(7,210,078)

See accompanying notes to consolidated financial statements.

22nd CENTURY GROUP INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CASH FLOWS

Six Months Ended June 30, 2013 and 2012

(unaudited)

	June 30, 2013	June 30, 2012
Cash flows from operating activities:		
Net loss	$(2,959,158)	$(1,982,446)
Adjustments to reconcile net loss to cash used by operating activities:		
Amortization and depreciation	109,600	95,916
Amortization of debt issuance costs	4,232	13,018
Amortization of debt discount	110,063	721,906
Interest due to debt conversion	17,386	31,350
Warrant liability gain	(242,327)	(632,399)
Equity based employee compensation expense	912,480	745,201
Equity based payments for outside services	1,024,451	116,940
(Increase) decrease in assets:		
Inventory	(26,533)	(494,785)
Prepaid expenses	(22,802)	141,322
Increase (decrease) in liabilities:		
Accounts payable	(312,858)	336,125
Accrued interest payable to related parties	6,172	(19,673)
Accrued expenses	(127,770)	(104,591)
Net cash used by operating activities	(1,507,064)	(1,032,116)
Cash flows from investing activities:		
Acquisition of patents and trademarks	(14,620)	-
Acquisition of office furniture and fixtures	(14,398)	-
Net cash used by investing activities	(29,018)	-
Cash flows from financing activities:		
Deferred private placement costs	-	(10,000)
Proceeds from issuance of notes	150,000	50,000
Payments on borrowings - notes payable	(395,286)	(35,000)
Payments on borrowings - convertible notes	(339,250)	-
Net proceeds from May 2012 private placement	-	786,500
Net proceeds from January 2013 preferred stock private placement	2,034,664	-
Net proceeds from exercise of warrants	542,229	-
Other capital contribution	1,660	-
Net payments to related party	(2,500)	(6,378)
Net advances to officers	(3,893)	(3,134)
Net cash provided by financing activities	1,987,624	781,988
Net increase (decrease) in cash	451,542	(250,128)
Cash - beginning of period	188	252,249
Cash - end of period	$451,730	$2,121

Cash paid during the period for interest	$32,339	$11,741
Cash paid during the period for income taxes	$-	$-
Supplemental disclosure of noncash investing and financing activities:		
Reduction of accounts payable not related to operating activities:		
Common stock issued as payment of accounts payable	$-	$359,754
Common stock issued as payment of deferred private placement costs	-	36,875
Accounts payable converted to promissory notes	769,377	-
	$769,377	$396,629
Accrued interest converted to promissory notes	$26,422	$-
Common stock issued for prepaid services	$-	$171,246
Deferred private placement costs charged to contributed capital	$-	$4,526
Notes payable and accrued interest converted to common shares	$-	$120,750
Common stock issued for fees relating to January 2013 preferred stock private placement	$416,666	$-
Preferred stock dividend payable	$93,361	$-
Refinance of convertible note to note payable	$57,500	$-
Conversion of notes payable and accrued interest to common stock	$1,427,705	$-
Issuance of warrants as derivative liability instruments and reduction of capital	$4,174,044	$152,100
Reclassification of derivative liability to equity due to warrant exercise	$204,513	$-
Patent and trademark additions included in accounts payable	$85,426	$74,152
Office furniture & fixture additions included in accounts payable	$8,707	$-
Deferred debt issuance costs included in accounts payable	$-	$5,000

See accompanying notes to consolidated financial statements.

22nd CENTURY GROUP, INC. AND SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS JUNE 30, 2013

NOTE 1. - NATURE OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation - The accompanying unaudited consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles (GAAP) for interim financial information and with the instructions to Form 10-Q and Rule 8.03 of Regulation S-X for smaller reporting companies. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. In the opinion of management, all adjustments, consisting of normal recurring accruals, considered necessary for a fair and non-misleading presentation of the financial statements have been included.

Operating results for the three and six months ended June 30, 2013 are not necessarily indicative of the results that may be expected for the year ending December 31, 2013. The balance sheet at December 31, 2012 has been derived from the audited financial statements at that date, but does not include all of the information and footnotes required by GAAP for complete financial statements. These interim consolidated financial statements should be read in conjunction with the December 31, 2012 audited consolidated financial statements and the notes thereto.

Nature of Business - 22nd Century Ltd, 22nd Century Group's wholly-owned subsidiary, is a plant biotechnology company specializing in technology that allows for the level of nicotine and other nicotinic alkaloids (e.g., nornicotine, anatabine and anabasine) in tobacco plants to be decreased or increased through genetic engineering and plant breeding. The Company owns or exclusively controls 111 issued patents in 78 countries plus an additional 38 pending patent applications. Goodrich Tobacco Company, LLC and Hercules Pharmaceuticals, LLC are subsidiaries of 22nd Century Ltd and are business units for the Company's (i) premium cigarettes and modified risk tobacco products and (ii) smoking cessation product, respectively.

Principles of Consolidation - The accompanying consolidated financial statements include the accounts of 22nd Century Group, its wholly owned subsidiary, 22nd Century Ltd, and 22nd Century Ltd's wholly owned subsidiaries, Goodrich Tobacco and Hercules Pharmaceuticals. In May 2012, 22nd Century Ltd acquired from an employee the non-controlling membership units of Goodrich Tobacco that it did not own so that Goodrich Tobacco became a wholly owned subsidiary. All intercompany accounts and transactions have been eliminated.

Reclassifications - Certain items in the 2012 financial statements have been reclassified to conform to the 2013 classification.

Preferred stock authorized - The Company is authorized to issue “blank check” preferred stock, which could be issued with voting, liquidation, dividend and other rights superior to our common stock. On January 11, 2013, the Company designated the rights of and issued 2,500 shares of Series A-1 Preferred Stock. As of June 7, 2013, all 2,500 outstanding shares of Series A-1 Preferred Stock was converted into 4,166,666 shares of common stock of the Company (see Note 3) and no shares of preferred stock remain outstanding.

Inventory - Inventories are valued at the lower of cost or market. Cost is determined on the first-in, first-out (FIFO) method. Inventories are evaluated to determine whether any amounts are not recoverable based on slow moving or obsolete condition and are written off or reserved as appropriate. As of June 30, 2013 and December 31, 2012, the Company’s inventory consisted primarily of raw materials, mainly tobacco.

Intangible Assets **-** Intangible assets are recorded at cost and consist primarily of expenditures incurred with third parties related to the processing of patent claims and trademarks with government authorities. The Company also capitalized costs as a result of one of its exclusively licensed patent applications being subject to an interference proceeding invoked by the U.S. Patent and Trademark Office, which favorably resulted in the Company obtaining rights to a third party’s issued patents. The amounts capitalized relate to patents the Company owns or to which it has exclusive rights and its trademarks the Company owns, and exclude approximately $1.8 million recovered from a former licensee as direct reimbursements of costs incurred. The Company’s intellectual property capitalized costs are amortized using the straight-line method over the remaining statutory life of the Company’s largest patent family, which expires in 2019 (the assets’ estimated lives). Periodic maintenance or renewal fees are expensed as incurred. Annual minimum license fees are charged to expense in the year the licenses are effective. Total patent and trademark costs capitalized and accumulated amortization amounted to $2,326,630 and $981,550, respectively, as of June 30, 2013 ($2,226,586 and $873,282, respectively, as of December 31, 2012). The estimated annual amortization expense for the next five years is approximately $225,000.

Impairment of Long-Lived Assets **-** The Company reviews the carrying value of its amortizing long-lived assets whenever events or changes in circumstances indicate that the historical cost-carrying value of an asset may no longer be recoverable. The Company assesses recoverability of the asset by estimating the future undiscounted net cash flows expected to result from the asset, including eventual disposition. If the estimated future undiscounted net cash flows are less than the carrying value of the asset, an impairment loss is recorded equal to the difference between the asset’s carrying value and its fair value. There was no impairment loss recorded during the six months ended June 30, 2013 or 2012.

***Deferred Debt Issuance Costs* -** The Company incurred costs related to a private placement of convertible notes that closed on December 14, 2011 ("Convertible Notes"). These costs were recorded on the balance sheet as a deferred charge and are being amortized over the term (including extension) of the Convertible Notes. There was no unamortized balance at June 30, 2013 ($4,232 as of December 31, 2012). Amortization expense for the three and six months ended June 30, 2013 amounted to $0 and $4,232, respectively. Amortization expense for the three and six months ended June 30, 2012 amounted to $5,859 and $13,018, respectively.

***Income Taxes* -** The Company is required to recognize deferred tax assets and liabilities for any basis differences in its assets and liabilities between tax and GAAP reporting, and for operating loss and credit carry-forwards. The Company's federal and state tax returns for the years ended September 30, 2010 to December 31, 2012 are currently open to audit under the statutes of limitations. There are no pending audits as of June 30, 2013.

In light of the Company's history of cumulative losses, management has determined that is it more likely than not that its net deferred tax asset will not be realized. Accordingly, the Company established a valuation allowance to fully offset its net deferred tax asset as of June 30, 2013 and December 31, 2012.

Stock Based Compensation - The Company uses a fair-value based method to determine compensation for all arrangements under which Company employees and others receive shares, options or warrants to purchase common shares of 22nd Century Group. Stock based compensation expense is recorded over the requisite service period based on estimates of probability and time of achieving milestones and vesting. For accounting purposes, the shares will be considered issued and outstanding upon vesting.

Debt Discounts - Original issue discount ("OID") is recorded equal to the difference between the cash proceeds and the face value of the debt when issued and amortized as interest expense during the term of the debt.

When the convertible feature of conventional convertible debt is issued, the embedded conversion feature is evaluated to determine if bifurcation and derivative treatment is required and whether there is a beneficial conversion feature. When the convertible debt provides for an effective rate of conversion that is below market value, this feature is characterized as a beneficial conversion feature ("BCF"). Prior to the determination of the BCF, the proceeds from the debt instrument were first allocated between the convertible debt and any embedded or detachable free standing instruments that are included, such as common stock warrants. The proceeds allocated to any warrants are recorded as a debt discount.

For the Convertible Notes, bifurcation of the embedded conversion feature was not required and the Company recorded the OID and the BCF related to these Convertible Notes as a debt discount and recorded the Convertible Notes net of the discount related to both the OID and the BCF. Debt discount is amortized to interest expense over the

life of the debt. In the case of any conversion prior to the maturity date there will be an unamortized amount of debt discount that relates to such conversion. The prorata amount of unamortized discount at the time of such conversion is charged to interest expense as accelerated amortization of the discount. The fair value of warrants issued at the time of conversion is recorded as a reduction of the amount applied to the common stock issued in the conversion, and to the extent the fair value of warrants exceeds the carrying value of the debt, a charge to interest expense results for such excess amount.

***Revenue Recognition* -** The Company recognizes revenue at the point the product is shipped to a customer and title has transferred. Revenue from the sale of the Company's products is recognized net of cash discounts, sales returns and allowances. Federal cigarette excise taxes are included in net sales and accounts receivable billed to customers, except on sales of *SPECTRUM* and exported cigarettes in which such taxes do not apply.

The Company was chosen to be a subcontractor for a 5-year government contract between RTI International ("RTI") and the National Institute on Drug Abuse ("NIDA") to supply NIDA research cigarettes. These government research cigarettes are distributed under the mark *SPECTRUM*. The Company has delivered approximately 12 million *SPECTRUM* cigarettes during the years ended December 31, 2012 and 2011. There were no *SPECTRUM* cigarettes delivered during the six months ended June 30, 2013 and 2012. Future revenue under this sub-contract arrangement is expected to be related to the delivery of *SPECTRUM* and will be recognized at the point the product is shipped and title has transferred.

***Derivatives* -** We do not use derivative instruments to hedge exposures to cash flow, market or foreign currency risks. We evaluate all of our financial instruments to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. For derivative financial instruments that are accounted for as liabilities, the derivative instrument is initially recorded at its fair market value and then is revalued at each reporting date, with changes in fair value reported in the consolidated statement of operations. The methodology for valuing our outstanding warrants classified as derivative instruments utilizes a lattice model approach which includes probability weighted estimates of future events including volatility of our common stock. The classification of derivative instruments, including whether such instruments should be recorded as liabilities or equity, is evaluated at the end of each reporting period. Derivative instrument liabilities are classified on the balance sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument could be required within twelve months of the balance sheet date.

***Research and Development* -** Research and development costs are expensed as incurred.

Loss Per Common Share - Basic loss per common share is computed using the weighted-average number of common shares outstanding. Diluted loss per share is computed assuming conversion of all potentially dilutive securities. Potential common shares outstanding are excluded from the computation if their effect is anti-dilutive.

***Commitment and Contingency Accounting* -** The Company evaluates each commitment and/or contingency in accordance with the accounting standards, which state that if the item is more likely than not to become a direct liability, then the Company will record the liability in the financial statements. If not, the Company will disclose any material commitments or contingencies that may arise.

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

Fair Value of Financial Instruments - Financial instruments include cash, receivables, accounts payable, accrued expenses, notes payable, convertible notes payable and warrant liability. Other than warrant liabilities and convertible notes payable, fair value is assumed to approximate carrying values for these financial instruments; since they are short term in nature, they are receivable or payable on demand, or had stated interest rates that approximate the interest rates available to the Company as of the reporting date. The convertible notes payable are recorded at their face amount, net of unamortized discounts for original issue discounts and beneficial conversion features. As of June 30, 2013, the fair value of the convertible notes with a face amount of approximately $222,600 had an estimated fair value of approximately $432,000 based on the underlying value of the shares and warrants that the notes can be converted into. Since the underlying shares are trading in an active, observable market, the fair value measurement

qualifies as a Level 1 input and the warrants are measured with Level 3 inputs. The determination of the fair value of the warrant liabilities is disclosed in Note10. In August 2013, the Company received notice of conversion from the holders of the convertible notes with a face value of approximately $222,600 to convert the notes to common stock.

NOTE 2. - LIQUIDITY AND MANAGEMENT'S PLANS

Since 2006, the Company has incurred substantial operating losses as it transitioned from being solely a licensor of its proprietary technology and tobaccos to commercializing its own tobacco products. At June 30, 2013, the Company had current assets of $1,788,575 and current liabilities of $2,278,807. Cash on hand at June 30, 2013 of $451,730 is insufficient to sustain operations for the remainder of 2013 and pay outstanding current liabilities as they become due. The Company is seeking licensees for its technology and products and joint venture partners to fund the remaining *X-22* clinical trials.

Goodrich Tobacco continues to explore having its *RED SUN*, *MAGIC* and *SPECTRUM* brands produced by an alternative contract manufacturer that is a participating manufacturer to the Master Settlement Agreement ("MSA") a settlement among 46 states and the tobacco industry administered by the National Association of Attorneys General ("NAAG"). In parallel to these efforts, in January 2013 Goodrich Tobacco applied to the Alcohol and Tobacco Tax Trade Bureau ("TTB") for a federal permit to manufacture its own tobacco products. Being a federally licensed tobacco product manufacturer is a primary requirement of becoming a participating manufacturer of the MSA. On February 26, 2013, Goodrich Tobacco applied to the NAAG to become a participating manufacturer to the MSA. Both of these measures, if approved by the TTB and NAAG, will greatly facilitate the sales and distribution potential of *RED SUN* and *MAGIC* in the U.S. In order to facilitate Goodrich Tobacco becoming a participating manufacturer of the MSA, sales and marketing of these products have been curtailed, because the more *RED SUN* and *MAGIC* that is sold while being produced by a non-participating manufacturer, the greater settlement cost Goodrich Tobacco likely has to pay to become a participating manufacturer of the MSA. The Company expects its cigarette factory start-up costs to be approximately $1 million and it plans to lease a portion of the machinery required. The costs associated with the MSA settlement are expected to be less than $40,000.

In January 2013, the Company realized net proceeds of approximately $2.035 million through the sale of preferred shares, convertible notes with a carrying value at December 31, 2012 of approximately $1.409 million were converted into common stock, and during June 2013, the Company realized net proceeds of $0.542 million on the exercise of Series B Warrants into shares of common stock. The Company realized net proceeds of $0.608 million on the exercise of additional Series B Warrants into shares of common stock during July 2013. On August 1, 2013, the Company entered into a Warrant Exercise Agreement with the holders of its Series A Warrants and Series C Warrants for such holders to exercise a portion of such Series C Warrants to acquire an aggregate of 1,666,666 shares of the Company's common stock for a cash payment of $1.0 million. While these steps significantly improved the Company's financial position, it will need additional financing or licensing arrangements for its technology and products in order to have adequate cash requirements to fund operations and meet its obligations during the remainder of 2013. There can be no assurance that the Company will be able to raise sufficient financing or obtain a significant licensing contract. The financial statements do not include any adjustments that might result from this uncertainty.

NOTE 3. - JANUARY 2013 PREFERRED STOCK PRIVATE PLACEMENT

On January 11, 2013, the Company sold 2,500 shares of newly created Series A-1 10% Convertible Preferred Stock (the "Series A-1 Preferred Stock") and warrants for $2.5 million. Net proceeds from this issuance were $2.035 million. On February 4, 2013 the Company filed an S-1 registration statement with the Securities and Exchange Commission ("SEC") and on March 29, 2013, after the Company filed two amendments, the SEC declared the registration statement effective to register up to 6,250,000 common shares issuable upon conversion of Series A-1 Preferred Stock and upon exercise of the Series B warrant.

The shares of Series A-1 Preferred Stock were initially convertible into a total of 4,166,666 shares of the Company's common stock at a conversion price of $0.60 per share (the "Conversion Price"), subject to future adjustments. The Series A-1 Preferred Stock pay a 10.0% annual cash dividend, which may be payable in shares of our common stock in certain circumstances, and have a liquidation preference equal to the stated value of the Series A-1 Preferred Stock of $1,000 per share plus any accrued and unpaid dividends thereon. The Series A-1 Preferred Stock has no voting rights. The Conversion Price of the Series A-1 Preferred Stock is subject to adjustment as follows:

1. on the effective date of the registration statement, the Conversion Price will be reduced to the lesser of (1) the Conversion Price, as adjusted and taking into consideration any prior resets, (2) the greater of $0.35 (subject to adjustment for reverse and forward stock splits and the like) and 70% of the average of the five (5) trading day volume weighted average prices, or VWAPs, immediately prior to each such effective date or (3) $0.60 (subject to adjustment for forward and reverse stock splits and the like). No adjustment to the Conversion Price was triggered upon the effectiveness of the registration statement; and

2. if on the 180th day immediately following the closing date of January 11, 2013 (the "Closing Date"), 70% of the average of the five (5) trading day VWAPs immediately prior to such date is less than the Conversion Price, then on such 180th day the Conversion Price shall be reduced, and only reduced, to the lesser of (1) the then Conversion

Price, as adjusted and taking into consideration any prior resets, (2) the greater of $0.15 (subject to adjustment for reverse and forward stock splits and the like) and 70% of the average of the five (5) trading day VWAPs immediately prior to each such 180th day immediately following the Closing Date or (3) $0.35 (subject to adjustment for forward and reverse stock splits and the like). As a result of the conversion noted below in the second quarter of 2013, there was no adjustment that resulted from this provision; and

3. if all of the shares required to be registered are not registered pursuant to an effective registration statement within the 120th day anniversary of the Closing Date, then on the 180th day and 270th day following the Closing date, the Conversion Price shall be reduced, and only reduced, to the lesser of (1) the Conversion Price, as adjusted and taking into consideration any prior resets, (2) the greater of $0.15 (subject to adjustment for reverse and forward stock splits and the like) and 70% of the average of the five (5) trading day VWAPs immediately prior to each such date or (3) $0.35 (subject to adjustment for forward and reverse stock splits and the like). The registration statement was declared effective on March 29, 2013, therefore, the Conversion Price will not be subject to this adjustment.

The preferred stockholders do not have mandatory redemption rights, nor does the Company have an unconditional obligation to issue a variable number of shares. Further, there is a limit on the number of shares that are issuable upon conversion. Accordingly, the Series A-1 Preferred Stock is classified as permanent equity. Based on the fact that the host instrument is more akin to equity, it was further determined that bifurcation of the embedded conversion feature is not required. During the second quarter of 2013 all 2,500 shares of the Series A-1 Preferred Stock were converted into 4,166,666 shares of common stock of the Company.

The Company also issued to the Purchasers of the Series A-1 Preferred Stock a Series A warrant (the "Series A Warrant"), a Series B warrant (the "Series B Warrant"), and a Series C warrant (the "Series C Warrant") (with the Series A Warrant, Series B Warrant and Series C Warrant being collectively referred to herein as the "Warrants"). The Series A Warrant allows the Purchasers the right to acquire, initially before any adjustments to the conversion price, up to an additional 4,166,666 shares of the Company's common stock at an exercise price of approximately $0.72 per share over a period of five (5) years. The Series A Warrant also allows for such warrant to be exercised on a cashless basis. The Series B Warrant allows the Purchasers a one-year period to exercise an overallotment option as contained in the Series B Warrant to purchase, initially before any adjustments to the conversion price, up to an additional aggregate of 2,083,334 shares of the Company's common stock at a price of $0.60 per share. The Series B Warrant may not be exercised on a cashless basis except only in certain limited circumstances. In the event the Purchasers exercise, in whole or in part the overallotment option as contained in the Series B warrant, then the Purchasers shall have the right to exercise on a pro rata basis the portion of the Series C Warrant issued to the Purchasers to acquire, initially before any adjustments to the conversion price, up to an additional aggregate of 2,083,334 shares of the Company's common stock at an exercise price of approximately $0.72 per share over a period of five (5) years. The Series C Warrant allows for such warrant to be exercised on a cashless basis.

The warrants have a "down round provision" which results in the warrants being classified and reported as derivative liabilities for accounting purposes and marked to market at each balance sheet date. At the date of the issuance of these warrants, including lock-up warrants, the fair value was estimated to be $6,022,319, which exceeded the net consideration received in the offering of $2,034,664, resulting in an immediate charge to other expense – warrant liability change - net in the amount $3,987,655. During June 2013, 982,300 Series B Warrant shares were exercised resulting in net proceeds to the Company in the amount of $542,229. In addition, the exercise of the Series B Warrant shares resulted in a reduction in the warrant liability and an increase in capital in the amount of $204,513. The exercise of the 982,300 Series B Warrant shares triggered the issuance of a like amount of Series C Warrant shares. The Series C Warrant shares include a "down round provision" and results in a derivative liability upon issuance. At the date of issuance of the 982,300 Series C Warrant shares the fair value was estimated to be $711,675.

The Series A-1 Preferred Stock contains standard anti-dilution adjustments in the event of a stock dividend, stock split or similar corporate transaction. In addition, if, at any time while shares of Series A-1 Preferred Stock are outstanding, the Company sells any common stock (or securities issuable into common stock) or grant any option to purchase any common stock at an effective price per share that is lower than the then Conversion Price, referred to as a Diluting Issuance, then the Conversion Price shall be reduced to equal the effective price per share (as determined pursuant to the Certificate of Designation) of the Diluting Issuance. No adjustments will be made for shares of common stock or options granted to employees, officers or directors under our Equity Incentive Plan, upon conversion or exchange of any securities outstanding as of the time of the issuance of the Series A-1 Preferred Stock or in connection with certain business combinations. In the event the Company (i) declares dividends on common stock, (ii) grants any right to acquire common stock or other property pro rata to all holders of common stock or (iii) enters into a fundamental transaction that provides for consideration to the holders of common stock, then the Series A-1 Preferred Stock shall have the right to participate on a pro rata as-converted basis without regard to the 9.99% beneficial ownership limitation.

The Company agreed to a covenant in conjunction with the purchase agreement executed in connection with the sale of the Series A-1 Preferred Stock and Warrants to use commercially reasonable efforts to file with the SEC this registration statement, and further be declared effective by the SEC within certain timeframes. The Company successfully met this covenant when its registration statement was declared effective by the SEC on March 29, 2013. Further, following the effective date, if the registration statement ceases to remain continuously effective as to the registrable securities, then the holders of registrable common stock shall be entitled to monetary damages equal to two percent (2%) of the aggregate purchase price paid by such holder pursuant to the purchase agreement upon the occurrence of one of the foregoing events and for each full month thereafter until the applicable event is cured. This contingency is not considered probable and accordingly no amounts have been accrued.

In connection with the issuance of the Series A-1 Preferred Stock, the Company paid Chardan Capital Markets, LLC a commission equal to (i) ten percent (10%) of the cash received by the Company and (ii) 416,666 shares of common stock. In the event the Purchasers exercise for cash any of the Warrants, then the Company will also pay an additional cash commission to Chardan Capital Markets LLC equal to eight percent (8%) (with no additional equity) of any such additional cash amounts received by us. The Company owed $47,150 to Chardan Capital Markets, LLC as of June 30, 2013 as a result of the cash exercise of 982,300 Series B Warrants. This amount is included in accrued expenses on the balance sheet. In July 2013, the Company paid $100,000 to Chardan Capital Markets, LLC in full satisfaction of the commission due on the cash exercise of all Series B Warrants. As a result of the Series C Warrant exercise in August 2013, an additional $60,000 commission will be paid to Chardan Capital Markets, LLC. In conjunction with the Series A-1 Preferred Stock private placement, the Company issued 203,167 lock-up warrants to stockholders that participated in previous private placements. These warrants were valued at $168,402 and are considered liabilities due to a down round provision. This amount was also considered a cost of the Series A-1 Preferred Stock private placement. After deducting fees and expenses, the aggregate net proceeds from the sale of the Series A-1 Preferred Shares and the Warrants were $2.035 million. The net proceeds were earmarked for the payment of certain financial obligations and for working capital and other general corporate purposes.

As of June 30, 2013, the Company accrued a dividend payable to the preferred shareholders in the amount of $93,361. On May 9, 2013 the Company executed an agreement with the Purchasers of the Series A-1 Preferred Shares to pay certain accrued dividends on the Series A-1 Preferred Stock in shares of the Company's common stock in lieu of cash. In accordance with the agreement, on July 12, 2013, the Company issued 161,153 shares of common stock to the Purchasers of the Series A-1 Preferred Shares in payment of the accrued dividends payable at June 30, 2013. No dividends are accrued or payable subsequent to June 30, 2013.

NOTE 4. - MAY 2012 AND NOVEMBER 2012 PRIVATE PLACEMENT

On May 15, 2012, the Company issued 1,710,833 shares of its common stock and warrants to purchase up to 1,710,833 shares of its common stock for total consideration of $1,026,500 consisting of the following: $786,500 in cash, cancellation by a vendor of $150,000 in accounts payable and the exchange by an employee of his 4% minority interest in Goodrich Tobacco for stock and warrants valued at $90,000 in the offering. The warrants issued have an original exercise price of $1.00 per share, a five year term and a "down round provision," which results in the warrants being classified and reported as derivative liabilities for accounting purposes, and marked to market at each balance sheet date. At the date of issuance of these warrants, the value was estimated to be $1,841,000 which exceeded the total consideration received in the offering by $814,500 resulting in an immediate charge to other income and expense - warrant liability - net for this amount. This private placement constituted a "down round" for purposes of all previously issued warrants and the December 14, 2011 Convertible Notes and resulted in adjustments to the exercise price, conversion price and the number of shares issuable upon exercise or conversion of these previously issued securities. Three executive officers of the Company acquired 44,000 shares and warrants for $26,400 in cash.

On November 9, 2012 the Company issued 3,238,000 shares of its common stock and warrants to purchase up to 1,619,000 shares of its common stock for total consideration of $809,500 consisting of the following: $681,000 in cash, cancellation by vendors of $98,500 in accounts payable, and cancellation of $30,000 in directors fees owed to two members of the board of directors. The warrants issued have an original exercise price of $1.00 per share, a five year term and a "down round provision," which results in the warrants being classified and reported as derivative liabilities for accounting purposes, and marked to market at each balance sheet date. At the date of issuance of these warrants the value was estimated to be $353,747 which reduced the amount recorded to additional paid in capital. This private placement constituted a "down round" for purposes of all previously issued warrants and the December 14, 2011 Convertible Notes and resulted in adjustments to the exercise price, conversion price and the number of shares issuable upon exercise or conversion of these previously issued securities. Two executive officers of the Company acquired 1,080,000 shares and 540,000 warrants for $270,000 in cash. Two directors of the Company acquired 120,000 shares and 60,000 warrants in lieu of payment of $30,000 of director fees.

NOTE 5. - AMOUNTS OWED NORTH CAROLINA STATE UNIVERSITY ("NCSU")

The Company is currently in full compliance with the NCSU license agreement. Pursuant to the terms of an exclusive license agreement with NCSU, the Company owes NCSU approximately $508,000 as of June 30, 2013 for patent costs and license fees (as compared to $873,000 owed as of December 31, 2012). These amounts are included in accounts payable, notes payable and accrued liabilities at June 30, 2013 and accounts payable and accrued liabilities at December 31, 2012 in the consolidated balance sheets. The Company was required to pay these amounts within thirty days of being invoiced and they are past due. NCSU has the right to claim interest on the balance. Management periodically communicates its plans for commercialization of products using the technology licensed from NCSU. As of June 30, 2013, patent costs associated with the exclusive license agreements had a carrying value of approximately $724,000. Additionally, NCSU has not imposed interest charges on past due amounts invoiced to the Company and as such the Company has not recorded accrued interest or interest expense.

In January 2013, the Company paid NCSU $400,000 and issued a note dated February 1, 2013 for $474,893. The note is unsecured, bears interest at 5% per annum and matures the earlier of October 1, 2013 or the closing of a licensing agreement with up front proceeds of at least $1.5 million. NCSU also agreed not to invoke rights to terminate the Company’s license agreement for nonpayment or nonperformance, if any, until October 1, 2013.

NOTE 6. - DEMAND BANK LOAN

The demand loan that is among the Company's short term liabilities is payable to a commercial bank under a revolving credit agreement and is guaranteed by an officer of the Company. This loan had a balance of $174,925 at June 30, 2013 and December 31, 2012. The Company is required to pay interest monthly at an annual rate of 0.75% above the prime rate, or 4.00% at June 30, 2013 and December 31, 2012. The Company is current in meeting this interest payment obligation. The terms of the demand loan include an annual "clean-up" provision, which requires the Company to repay all principal amounts outstanding for a period of 30 consecutive days every year. The Company has not complied with this requirement; however, the bank has not demanded payment. The bank has a lien on all the Company's assets.

NOTE 7. - NOTES PAYABLE

Notes payable consisted of the following as of the dates set forth below:

	June 30, 2013	**December 31, 2012**
Note dated March 31, 2011	$-	$ 77,000
Note dated January 25, 2011	140,000	140,000
Note dated March 13, 2013 and March 30, 2011	175,000	350,000
Note dated March 22, 2012 and April 13, 2012	-	50,000
Note dated January 15, 2013	226,780	-
Note dated January 23, 2013	150,000	-
Note dated January 24, 2013	58,340	-
Note dated February 1, 2013	474,893	-
	1,225,013	617,000
Less long term portion of notes payable	(175,000)	-
Notes Payable (shown in current liabilities)	$ 1,050,013	$ 617,000

***Convertible Note Dated March 31, 2011(unsecured)* -** On March 31, 2011, the Company issued a note to a vendor in the original amount of $237,000 as satisfaction of past due invoices previously recorded by the Company in accounts payable. The note bears interest at an annual rate of 9%. In December 2011 the note was amended and the principal was reduced by a cash payment of $50,000 and $100,000 of the notes was exchanged for $115,000 of a portion of the Convertible Notes issued December 14, 2011. The Company made a $10,000 principal payment in May 2012, leaving a remaining balance of $77,000 as of December 31, 2012. On January 18, 2013 the note was paid in full together with accrued interest.

***Note Dated January 25, 2011(unsecured)* -** On January 25, 2011, the Company issued a note for $140,000 to a shareholder as satisfaction of the balance due for principal and interest on a matured note that was not paid in cash or converted to common stock of 22nd Century Group and warrants to purchase shares of common stock of 22nd Century Group. The note bears interest at 12% and is due on July 1, 2013 together with accrued interest. As of June 30, 2013 and December 31, 2012, the outstanding principal amount of this note is $140,000. In July 2013, the Company made a $30,000 payment that was applied to the accrued interest on the note and the note holder agreed to extend the due date to October 1, 2013.

***Note Dated March 13, 2013 and March 30, 2011(unsecured)* -** On March 30, 2011, the Company issued a note to a vendor in the amount of $350,000 as satisfaction of past due invoices previously recorded by the Company in accounts payable. The note bears interest at an annual rate of 4%. Principal and accrued interest were due on July 1, 2012. As of December 31, 2012, the outstanding principal of $350,000 on this note remained unpaid. In January 2013, the Company repaid $268,286 of the note principal. The remaining unpaid balance of $81,714 plus accrued interest of $25,582 and outstanding accounts payable of $67,704 were refinanced into a new unsecured note dated March 13, 2013, which bears interest at 5% and matures on July 1, 2014 or sooner if the Company receives license revenue or financing of at least $1,500,000 prior to maturity. The outstanding principal on this note was $175,000 as of June 30, 2013.

***Note Dated March 22, 2012 and April 13, 2012 (secured)* -** On March 22, 2012 and April 13, 2012, the Company issued two notes in the amount of $25,000 each, originally due on October 1, 2012. The notes were secured by all assets of the Company and its subsidiaries. An officer of the Company is the managing member of the lender. The notes bear interest at an annual rate of 15%. The outstanding principal on this note as of December 31, 2012 was $50,000. Principal and accrued interest of both notes were paid in full on January 22, 2013.

***Note Dated January 15, 2013 (unsecured)* -** On January 15, 2013, the Company issued a note to a vendor in the amount of $226,780 as satisfaction of past due invoices previously recorded by the Company in accounts payable and accrued interest. The note bears interest at an annual rate of 8%. The outstanding principal and accrued interest is due on May 3, 2013 or sooner if the Company closes an in-licensing agreement in which the Company or a subsidiary receives an up-front payment of at least $1 million. The outstanding principal on this note as of June 30, 2013 was $226,780. On August 2, 2013, the Company made a $100,000 payment on the note and the note holder agreed to extend the due date to October 18, 2013.

***Note Dated January 23, 2013 (unsecured)* -** On January 23, 2013, the Company issued a note to a shareholder and executive officer of the Company. The note bears interest at an annual rate of 15%. The outstanding principal and accrued interest was due on July 1, 2013, and subsequent to June 30, 2013, the note holder agreed to extend the maturity date to October 1, 2013. The outstanding principal on this note as of June 30, 2013 was $150,000.

***Note Dated January 24, 2013 (unsecured)* -** On January 24, 2013, the Company issued a note to a former Convertible Note holder in the amount of $58,340 to discharge $57,500 in Convertible Notes held by the lender plus accrued interest. The note bears interest at an annual rate of 15%. The outstanding principal and accrued interest is due on July 24, 2013. The outstanding principal on this note as of June 30, 2013 was $58,340. On July 16, 2013, the note was paid in full together with accrued interest.

***Note Dated February 1, 2013 (unsecured)* -** On February 1, 2013, the Company issued a note to a vendor in the amount of $474,893 as satisfaction of past due invoices previously recorded by the Company in accounts payable. The note bears interest at an annual rate of 5%. The outstanding principal and accrued interest is due on October 1, 2013 or sooner if the Company closes an in-licensing agreement in which the Company or any affiliate receives an up-front payment of at least $1.5 million. The outstanding principal on this note as of June 30, 2013 was $474,893.

NOTE 8. - CONVERTIBLE NOTES

ISSUED DECEMBER 14, 2011

The Company issued convertible notes on December 14, 2011 in a negotiated sale with 24 investors in the total face amount of $1,926,250 (“Convertible Notes”). The Convertible Notes were sold for $1,675,000 - an original issue discount of $251,250. The Convertible Notes do not bear interest and the total face amount is due December 14, 2012. The Convertible Notes can be converted, at the option of each holder, in whole or in part, into shares of the Company’s common stock at $0.75 per share at which time the holder shall also receive warrants equal to 120% of the number of shares of Company common stock into which such Convertible Notes have been then converted. The Company can also force the investors to decide whether to convert by sending a 15-day written notice in which each investor is forced to decide whether to convert or get paid off. Such warrants will have a term of five years and an exercise price of $1.50 per share of common stock. In the event the Company engages in a subsequent financing transaction of at least $5,000,000 in shares of Company’s common stock with a sale price equal to or greater than $0.80 per share or debt securities which are convertible into shares of Company common stock with a conversion price equal to or greater than $0.80 per share of common stock, then the Company will have the right to mandatorily require the conversion of the Convertible Notes. Also, in the event of subsequent financing transaction of at least $5,000,000, the note holders have “piggyback’ registration rights of the common shares and warrants underlying the conversion of the Convertible Notes. The Convertible Notes contain “down round” provisions which provide for adjustments to the conversion price if the Company issues shares of common stock of 22nd Century Group at a price that is less than the exercise price. The conversion feature was not considered to be a derivative because it does not have a net cash

settlement provision as a result of the limited market and trading activity for the underlying stock. If the Convertible Notes are converted, the warrants issued at conversion have a “down round provision” and will be classified as derivatives for accounting purposes, and are reported as a liability and marked to market at each balance sheet date.

The Company’s common stock closed at $0.90 per share on December 14, 2011, which is greater than the portion of the conversion price under the Convertible Notes allocated to the underlying common shares. This difference is a beneficial conversion feature (BCF) which was valued at $1,062,758 at the issue date and recorded as debt discount and additional paid in capital. This BCF was amortized over the one year life of the Convertible Notes.

Three of the Company’s executive officers at the time of issuance acquired a portion of the Convertible Notes - with a face value of $368,000 for cash of $105,000 and conversion of $215,000 short term unsecured 12% notes issued by the Company earlier in 2011.

As of December 31, 2012, the OID and BCF discounts were fully amortized, and therefore, no amortization was recorded during the three or six months ended June 30, 2013. During the three and six months ended June 30, 2012 $328,197 and $721,906, respectively, of the debt discount was amortized and recorded as interest expense related to the OID and BCF discounts.

During the year ended December 31, 2012, notes with a face amount of $120,750 (carrying value at time of conversion of approximately $55,000, net of unamortized discount) were converted into 161,494 shares of common stock and warrants to purchase 193,793 shares of common stock. As a result of the conversion, the unamortized portion of the debt discount amounting to approximately $66,000 was immediately charged to interest and a derivative warrant liability valued at approximately $152,000 was recorded. The difference in the warrant value and debt relieved amounting to approximately $31,000 was also charged to interest expense. Included in note conversions during the year ended December 31, 2012 was a note converted by an officer with a face amount of $86,250 converted into 115,000 shares of common stock and warrants to purchase 138,000 shares of common stock

At December 31, 2012, Convertible Notes with a total face and carrying value of $1,805,500 remained outstanding; of this amount $1,523,750 were extended, by agreement with the note holders, to April 14, 2013 at 15% interest per annum. Two convertible note holders did not execute agreements to extend the notes. In connection with the issuance of the Series A-1 Preferred Stock in January 2013, the Convertible Note holders entered into lock-up agreements with the Company and received additional warrants (five year term at $1.50 exercise price) to purchase 219,909 shares of common stock, and have the same rights as the warrants in the original December 2011 convertible note agreement. The lock-up agreement restricts their ability to sell any of the shares received as a result of the conversion of the Convertible Notes.

Of the $1,805,500 in convertible notes outstanding at December 31, 2012, $1,408,750 of the convertible notes (together with accrued interest) were converted into 2,035,720 shares of common stock and five-year warrants (which includes lock-up warrants) to purchase 2,662,769 shares of common stock at $1.50 per share during the period from January 1, 2013 to February 6, 2013. The Company discharged the remaining convertible notes of $396,750 by payments in cash of $339,250 and refinancing $57,500 into a new note maturing July 24, 2013 (see Note 6). Of the notes paid in cash, $247,250 was held by an executive officer. The executive officer subsequently issued the Company a new promissory note in the amount of $150,000 and maturing on July 1, 2013 (see Note 6). Of the Convertible Notes issued on December 14, 2011, no amounts remain outstanding as of June 30, 2013.

The warrants issued in conjunction with the note conversions during the first quarter of 2013 were recorded at fair value at the time of issuance amounting to $1,445,091. Since the warrants are considered a derivate liability, the excess of the fair value of the warrants at the time of issuance above the face amount of the notes converted was immediately recorded as additional interest expense in the amount of $17,386.

ISSUED AUGUST 9, 2012

The Company issued convertible notes on August 9, 2012 in a negotiated sale with 4 investors in the total face amount of $222,600. The convertible notes were sold for $210,000 - an original issue discount (OID) of $12,600. The convertible notes do not bear interest and the total face amount is due August 9, 2013 together with warrants equal to 50% of the number of shares of Company common stock into which such convertible notes are converted. These

warrants were valued at $92,750 and represent additional debt discount and warrant liability. The convertible notes can be converted, at the option of each holder, in whole or in part, into shares of the Company's common stock at $0.60 per share at which time the holder shall also receive warrants equal to 100% of the number of shares of Company common stock into which such convertible notes are converted. Additional warrants issued as a result of conversion will be valued and recorded as a warrant liability at that time and will reduce the equity recorded as a result of the conversion. In the event the warrant value exceeds the amount of equity, an immediate charge to other expense will be recorded. The warrants issued upon conversion or maturity will have a term of five years and an exercise price of $1.00 per share of common stock. The conversion feature was not considered to be a derivative because it does not have a net cash settlement provision as a result of the limited market and trading activity for the underlying stock. The warrants to be issued upon conversion or maturity have a "down round provision" and will be classified as derivatives for accounting purposes, and are reported as a liability and marked to market at each balance sheet date.

The Company's common stock closed at $0.45 per share on August 9, 2012, which is greater than the portion of the conversion price under the convertible cotes allocated to the underlying common shares. This difference is a beneficial conversion feature (BCF) which was valued at $116,600 at the issue date and recorded as debt discount and additional paid in capital. This BCF is being amortized over the one year life of the convertible notes.

During the three and six months ended June 30, 2013, $55,336 and $110,063 of debt discount was amortized and recorded as interest expense related to the OID, warrant and BCF discounts, leaving $24,233 of unamortized debt discount as of June 30, 2013.

In August 2013, the Company received notice of conversion from the holders of the convertible notes with a face amount of approximately $222,600 to convert the notes to common stock.

The following table summarizes convertible notes and related discount.

	June 30, 2013	December 31, 2012
Face value of all convertible notes payable through maturity	$222,600	$2,028,100
Less unamortized original issue discount	(11,545)	(63,787)
Less unamortized discount related to BCF	(12,688)	(70,509)
Convertible Notes, net of unamortized debt discount	$198,367	$1,893,804
Carrying value of December 14, 2011 convertible notes	-	1,805,500
Carrying value of August 9, 2012 convertible notes	$198,367	$88,304
	$198,367	$1,893,804

NOTE 9. - DUE FROM OR TO RELATED PARTY

The Company has conducted transactions with a related party, Alternative Cigarettes, Inc. (“AC”). AC is entirely owned by certain shareholders of the Company, including the CEO. AC shares office space and employee services with the Company. During the year ended December 31, 2011 the Company acquired its *MAGIC* trademark from AC for a purchase price of $22,500. During the six months ended June 30, 2013 and the year ended December 31, 2012, transactions with AC consisted mainly of repayments and advances. The net amount due from AC amounted to $39,469 as of June 30, 2013 ($36,969 as of December 31, 2012). No interest has been accrued or paid on amount due from or to AC and there are no repayment terms.

NOTE 10. - WARRANTS FOR COMMON STOCK

In connection with the January 25, 2011 Private Placement and Merger, the Company issued five year warrants (“January 25, 2011 Warrants”) to purchase shares of common stock of 22nd Century Group. These warrants contain “down round” provisions which provide for adjustments to the exercise price if the Company issues common shares of stock of 22nd Century Group at a price that is less than the respective warrant exercise prices. This provision is a guarantee of value which requires that these warrants be classified as derivatives for accounting purposes which means they are reported as a liability and marked to market at each balance sheet date. As a result of the equity securities issued during 2012, the “down round provision” of the January 25, 2011 Warrants was triggered and the adjusted warrants outstanding as of December 31, 2012 were 5,482,055 with an exercise price of $2.73 per share and 3,947,232 with an exercise price of $1.39 per share. As a result of equity securities issued during the six months ended June 30, 2013, the January 25, 2011 Warrants now amount to 5,955,217 warrants with an exercise price of $2.52 per share and 4,183,252 warrants with an exercise price of $1.31 per share outstanding as of June 30, 2013.

During 2012, 193,200 warrants at an original exercise price of $1.50 were issued upon partial conversion of the December 14, 2011 Convertible Notes, which include “down round provisions” and resulted in a derivative liability upon issuance of approximately $152,000. Due to subsequent issuance of common stock and instruments convertible into common stock, the number of warrants issuable and exercise price has been adjusted. As of June 30, 2013, warrants issued during 2012 related to partial conversion of December 14, 2011 Convertible Notes now amount to 245,676 warrants outstanding with an exercise price of $1.18 per share.

Between January 2, 2013 and February 6, 2013 Convertible Notes issued on December 14, 2011 with a carrying value of $1,408,750 (together with accrued interest) were converted into 2,035,720 shares of common stock and five-year warrants to purchase 2,662,769 shares of common stock at $1.50 per share. The number of warrants issued upon conversion includes 219,909 lock-up warrants with the same rights as the December 14, 2011 Convertible Notes warrants. These warrants include a “down round provision” and resulted in a derivative liability upon conversion of $1,445,091. As a result of equity securities issued in 2013, as of June 30, 2013, there are now 2,808,841 warrants outstanding with exercise prices of $1.29 and $1.43 per share on 225,866 and 2,582,975 shares, respectively.

In May 2012, the Company issued 1,710,833 five-year warrants to purchase common stock in a private placement with an original exercise price of $1.00. These warrants contain “down round provisions” and resulted in a derivative liability upon issuance of approximately $1,841,000. The Company issued 124,217 lock-up warrants to the holders of May 2012 private placement warrants with the same rights as the warrants originally issued. The exercise price of the May 2012 warrants and lock-up warrants was adjusted as a result of subsequent equity securities issued at a lower price than the original exercise price. As of June 30, 2013, 1,847,050 warrants were outstanding with an exercise price of $.60 per share.

The convertible notes issued in August 2012 require the Company to issue at least 185,500 warrants ($1.00 per share five year term), which results in a derivative liability upon issuance of the notes of approximately $92,750.

In November 2012, the Company issued 1,619,000 five-year warrants to purchase common stock in a private placement with an original exercise price of $1.00. These warrants contain “down round provisions” and resulted in a derivative liability upon issuance of $353,747. The Company issued 53,950 lock-up warrants to the holders of November 2012 private placement warrants with the same rights as the warrants originally issued. The exercise price of the November 2012 warrants and lock-up warrants was adjusted as a result of subsequent equity securities issued at a lower price than the original exercise price. As of June 30, 2013, 1,672,950 warrants were outstanding with an exercise price of $.60 per share.

The Company issued 6,250,000 warrants to purchase common stock in the January 2013 Series A-1 Preferred Stock private placement, including 4,166,666 Series A Warrants, which are five-year warrants with an exercise price of $.72 per share and 2,083,334 Series B Warrants, which are one-year warrants with an exercise price of $.60 per share. These warrants include “down round provisions” and resulted in a derivative liability upon issuance. The fair value of the Series A Warrants, Series B Warrants and the lock-up warrants issued to the May and November 2012 private placement warrant holders in conjunction with the January 2013 Series A-1 Preferred Stock private placement amounted to $6,022,319. Further, 2,083,334 Series C Warrants are issuable upon exercise of the Series B Warrants. As of June 30, 2013, all of the Series A Warrants and 1,101,034 of the Series B Warrants remained outstanding at the original exercise price. As a result of the exercise of 982,300 Series B Warrant shares during June 2013, an equal amount of Series C Warrant shares became exercisable, leaving 1,101,034 Series C Warrant shares to become exercisable upon the exercise of the remaining Series B Warrant shares. The 982,300 Series C Warrant shares outstanding are exercisable at $0.72 and include a “down round provision,” which results in a derivative liability upon issuance. The fair value of the Series C Warrant shares issued amounted to $711,675. During July 2013, the remaining 1,101,034 Series B Warrant shares were exercised. As a result of all the remaining Series B Warrant shares being exercised, 2,083,334 of Series C Warrant shares became available for exercise at an exercise price of $0.72 per share.

The Company estimates the value of warrant liability upon issuance of the warrants and at each balance sheet date using the binomial lattice model to allocate total enterprise value to the warrants and other securities in the Company’s capital structure. Volatility was estimated based on historical observed equity volatilities and implied (forward) or expected volatilities for a sample group of guideline companies and consideration of recent market trends. The following table is a roll-forward of the warrant liability:

Fair value at December 31, 2011	$550,000
Fair value of warrant liability upon partial conversion of December 14, 2011 Notes	152,100
Fair value of warrant liability upon issuance – May 15, 2012	1,841,000
Fair value of warrant liability related to minimum warrants issuable upon maturity of August 9, 2012 convertible notes	92,750
Fair value of warrant liability upon issuance – November 9, 2012	353,747

Loss as a result of change in fair value	1,183,543
Fair value at December 31, 2012	$4,173,140
Fair value of warrant liability upon conversion of remaining December 14, 2011 Notes	1,445,091
Fair value of warrant liability upon issuance – January 11, 2013	6,022,319
Fair value of warrant liability upon issuance – June 2013	711, 675
Reclassification of warrant liability to equity upon exercise of warrants – June 2013	(204,513)
Gain as a result of change in fair value	(4,229,982)
Fair value at June 30, 2013	$7,917,730

The aggregate net gain on warrant liability for the three and six months ended June 30, 2013 amounted to $1,258,502 and $4,229,982, respectively, which is included in other income (expenses) as part of “warrant liability-net” in the accompanying consolidated statements of operations. The amount for the six months ended June 30, 2013 also includes a charge to other income (expense) as a result of warrant liabilities issued in connection with the Series A-1 Preferred Stock in excess of net proceeds raised in the amount of $3,987,655. Warrant liabilities issued in connection with the December 14, 2011 Convertible Notes converted to common stock in excess of the conversion amount by $17,386 was recorded as additional interest expense.

ASC 820 - "Fair Value Measurements and Disclosures" establishes a valuation hierarchy for disclosure of the inputs to valuation used to measure fair value. This hierarchy prioritizes the inputs into three broad levels as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.
- Level 3 inputs are unobservable inputs based on the Company's own assumptions used to measure assets and liabilities at fair value.

A financial asset or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement. The warrant liability is measured at fair value using certain estimated factors such as volatility and probability which are classified within Level 3 of the valuation hierarchy. Significant unobservable inputs are used in the fair value measurement of the Company's derivative warrant liabilities include volatility. Significant increases (decreases) in the volatility input would result in a significantly higher (lower) fair value measurement.

The following table summarizes the warrant activity since December 31, 2011:

	Number of Warrants
Warrants outstanding at December 31, 2011	8,668,701
Warrants issued	3,523,033
Additional warrants due to anti-dilution provisions	780,930
Warrants exercised during 2012	-
Warrants outstanding at December 31, 2012	12,972,664
Warrants issued	10,098,240
Additional warrants due to anti-dilution provisions	896,223
Warrants exercised during 2013	(982,300)
Warrants outstanding at June 30, 2013	**22,984,827**

NOTE 11. - RETIREMENT PLAN

The Company sponsors a defined contribution plan under IRC Section 401(k). The plan covers all employees who meet the minimum eligibility requirements. Under the 401(k) plan eligible employees are allowed to made voluntary deferred salary contribution to the plan, subject to statutory limits. The Company has elected to make Safe Harbor Non-elective Contributions to the plan for eligible employees in the amount of three percent (3%) of the employee's

compensation. Total employer contributions to the plan, including a contribution made for 2012 in 2013, amounted to $3,369 and $23,558 for the three and six months ended June 30, 2013, respectively. There were no employer contributions to the plan for the three and six months ended June 30, 2012.

NOTE 12. - COMMITMENTS

License Agreements - Under its exclusive license agreement with NCSU, the Company is required to pay minimum annual royalty payments, which are credited against running royalties on sales of licensed products. The annual minimum royalty for 2013 through 2015 is $75,000 and in 2016 the annual minimum royalty increases to $225,000. The license agreement continues through the life of the last-to-expire patents, which is expected to be 2022. These annual minimum royalty payments are due each February 1st following the end of the applicable calendar year and are reduced by any running royalties paid or payable for that year. The agreement also requires a milestone payment of $150,000 upon FDA approval of a product that uses the NCSU licensed technology. The Company is responsible for reimbursing NCSU for actual third-party patent costs incurred. These costs vary from year to year and the Company has certain rights to direct the activities that result in these costs. During the three months ended June 30, 2013, the costs incurred related to the prosecution of patent applications and patent maintenance amounted to $9,150 ($13,448 - June 30, 2012).

The Company has two other exclusive license agreements which require aggregate annual license fees of approximately $75,000, which are credited against running royalties on sales of licensed products. Each license agreement continues through the life of the last-to-expire patents.

The Company entered into a three year lease for office space in Clarence, New York, which commenced September 1, 2011. On January 25, 2013, the Company entered into a two and a half year lease for manufacturing space in Depew, New York, which commenced February 1, 2013. Scheduled rent commitments remaining as of June 30, 2013 are approximately as follows:

2013	$28,000
2014	$45,000
2015	$10,000

NOTE 13. - EARNINGS PER COMMON SHARE

The following table sets forth the computation of basic and diluted earnings per common share for the three month period ended June 30, 2013 and 2012:

	June 30, 2013	June 30, 2012
Net (loss) income attributed to common shareholders	$(445,955)	$141,767
Denominator for basic earnings per share-weighted average shares outstanding	39,794,189	29,257,426
Effect of dilutive securities: Warrants, restricted stock and options outstanding	-	-
Denominator for diluted earnings per common share - weighted average shares adjusted for dilutive securities	39,794,189	29,257,426
(Loss) income per common share – basic	$(0.01)	$0.00
(Loss) income per common share- diluted	$(0.01)	$0.00

The following table sets forth the computation of basic and diluted earnings per common share for the six month period ended June 30, 2013 and 2012:

	June 30, 2013	**June 30,** 2012
Net loss attributed to common shareholders	$(2,959,158)	$(1,980,990)
Denominator for basic earnings per share-weighted average shares outstanding	38,059,566	27,991,393

Effect of dilutive securities:		
Warrants, restricted stock and options outstanding	-	-
Denominator for diluted earnings per common share - weighted average shares adjusted for dilutive securities	38,059,566	27,991,393
Loss per common share – basic	$(0.08)	$(0.07)
Loss per common share- diluted	$(0.08)	$(0.07)

Securities outstanding that were excluded from the computation because they would have been anti-dilutive are as follows:

	June 30, 2013	June 30, 2012
Warrants (including Series C Warrant issuable upon exercise of Series B Warrant of 1,101,034)	24,097,860	11,007,754
Convertible debt (including warrants issuable upon conversion of 371,000 at June 30, 2013 and 2,888,800 at June 30, 2012)	742,000	5,296,133
Restricted stock	500,000	550,000
Options	680,000	450,000
	26,019,860	17,303,887

NOTE 14. - STOCK BASED COMPENSATION

On October 21, 2010, the Company established the 2010 Equity Incentive Plan ("EIP") for officers, employees, directors, consultants and advisors to the Company and its affiliates, consisting of 4,250,000 shares of common stock. The EIP has a term of ten years and is administered by our Board of Directors ("Board") or a committee to be established by our Board (the "Administrator"), to determine the various types of incentive awards that may be granted to recipients under this plan and the number of shares of common stock to underlie each such award under the EIP. On March 31, 2011, the Company filed a Form S-8 registration statement with the SEC to register all of the shares of common stock of 22nd Century Group that it may issue under the EIP.

For the three and six months ended June 30, 2013, the Company recorded compensation expense related to stock awards, restricted stock awards and stock options to employees, directors and consultants of $973,253 and $1,936,931, respectively ($610,755 and $659,734, respectively, for the three and six months ended June 30, 2012). During the six months ended June 30, 2013 the Company issued restricted stock awards for 890,000 restricted shares to employees and directors that vested immediately on February 25, 2013, a 100,000 restricted stock award that will vest one year from grant date of April 1, 2013, and 1,450,000 shares paid to third parties for services on various dates. Further, 150,000 shares of a restricted stock award previously granted award vested during the period. All awards were valued at the closing price on the measurement date of the award.

As of June 30, 2013, unrecognized compensation expense related to non-vested restricted shares and stock options with vesting terms amounted to approximately $168,000, which is expected to be recognized approximately as follows: $68,000 and $100,000 during 2013 and 2014, respectively. No expense was recorded for restricted stock grants with milestone vesting not considered probable, which had a fair value at grant date of $51,000.

The weighted average grant date fair value of options issued during the six months ended June 30, 2013 was $0.68 ($0.60 - 2012). The total fair value of options that vested during the six months ended June 30, 2013 amounted to $186,959 ($242,020 - 2012).

The fair value of each option grant is estimated on the date of grant using the Black-Scholes option-pricing model. The following assumptions were used for the six months ended June 30, 2013 and 2012:

	2013		2012	
Risk-free interest rate	1.89	%	1.71	%
Expected dividend yield	0	%	0	%
Expected stock price volatility	90	%	90	%

Expected life of options	10 years	10 years

A summary of all stock option activity since December 31, 2012 is as follows:

	Number of Options	**Weighted Average Exercise Price**	**Weighted Average Remaining Contractual Term**	**Aggregate Intrinsic Value**
Outstanding at December 31, 2012	465,000	$ 0.69		
Granted in 2013	215,000	$ 0.80		
Outstanding at June 30, 2013	680,000	$ 0.73	9.1 years	$ 25,200
Exercisable at June 30, 2013	680,000	$ 0.73	9.1 years	$ 25,200

NOTE 15. - SUBSEQUENT EVENTS

Following the exercise of 982,300 Series B Warrant shares in the second quarter of 2013 resulting in $589,380 of gross proceeds to the Company, during July 2013 the remaining 1,101,034 Series B Warrant shares were exercised resulting in gross proceeds to the Company in the amount of $660,620. As a result of all of the remaining Series B Warrants being exercised, 2,083,334 of Series C Warrant shares became available for exercise at an exercise price of $0.72.

On August 1, 2013 the Company issued 275,000 shares of common stock, par value $0.00001 per share, of the Company pursuant to an agreement between the Company and Chardan Capital Markets, LLC ("Chardan") for investor relation services provided by Chardan. This sale was offered and sold in reliance on the exemption from registration afforded by Section 4(2) under the Securities Act of 1933, as amended.

During August 2013, the Company received conversion notices pursuant the terms and conditions of the convertible notes issued on August 9, 2012, maturing August 9, 2013, with a face value of approximately $222,600. As a result of these conversions the Company is obligated to issue an aggregate of 371,000 shares of common stock, par value $0.00001 per share, of the Company to the note holders. In addition, the notes call for the Company to issue to the note holders a like amount of warrant shares with a five year term, a cashless exercise provision, and an exercise price of $1.00 per share.

On August 1, 2013, the Company entered into a Warrant Exercise Agreement with the holders of its Series A Warrants and Series C Warrants for such holders to exercise a portion of such Series C Warrants to acquire an aggregate of 1,666,666 shares of the Company's common stock for a cash payment to the Company of One Million Dollars ($1,000,000). Prior to the Company and such holders of the Series A Warrants and the Series C Warrants entering into such Warrant Exercise Agreement, the Series A Warrants and the Series C Warrants could have been exercised by such holders on an entirely cashless basis. In exchange for the cash exercise of such portion of the Series C Warrants, the Company reduced the exercise price of all of the Series A Warrants and Series C Warrants to $0.60 per share. In addition, if on a specified date in the future when the shares of common stock of the Company acquired upon this cash exercise of the Series C Warrants become freely tradable pursuant to Rule 144 of the Securities Act of 1933, as amended, the Company's common stock (as measured by the five trading days before such date) is less than $1.31 per share (the "Measurement Price"), then the Company must reimburse the holders of these warrants up to an amount equal to the difference between $1.31 and the Measurement Price (subject to a floor of $0.60 per share) multiplied by the number of shares of common stock acquired upon the cash exercise of such Series C Warrants pursuant to the terms of the Warrant Exercise Agreement. Notwithstanding the foregoing, the Company has no obligation to pay such amounts until and unless the holders of the shares actually incur a loss on the sales of such shares of common stock for a price below the Measurement Price. As a result of this Warrant Exercise Agreement, an additional $60,000 commission will be paid to Chardan Capital Markets, LLC.

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

Forward-Looking Statements

This Quarterly Report on Form 10-Q contains "forward-looking statements" that reflect, when made, the Company's expectations or beliefs concerning future events that involve risks and uncertainties. Forward-looking statements frequently are identified by the words "believe," "anticipate," "expect," "estimate," "intend," "project," "will be," "will con likely result," or other similar words and phrases. Similarly, statements herein that describe the Company's objectives, plans or goals also are forward-looking statements. Actual results could differ materially from those projected, implied or anticipated by the Company's forward-looking statements. Some of the factors that could cause actual results to differ include: our ability to close a licensing agreement for our technology and products; our ability to raise capital in order to continue as a going concern; our ability to achieve profitability; our ability to manage our growth effectively; our ability to obtain FDA clearance for our Modified Risk Cigarettes; our ability to obtain FDA approval for our X-22 smoking cessation product; our ability to gain market acceptance for our products and our ability to maintain our rights to our intellectual property licenses. For a discussion of these and all other known risks and uncertainties that could cause actual results to differ from those contained in the forward-looking statements, see "Risk Factors" in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2012, which is available on the SEC's website at www.sec.gov. All forward-looking statements are qualified in their entirety by this cautionary statement, and the Company undertakes no obligation to revise or update this Quarterly Report on Form 10-Q to reflect events or circumstances after the date hereof.

For purposes of this Management's Discussion and Analysis of Financial Condition and Results of Operations, references to the "Company," "we," us" or "our" refer to the operations of 22nd Century Group, Inc. and its direct and indirect subsidiaries for the periods described herein.

Overview

22nd Century Limited, LLC ("22nd Century Ltd"), our wholly-owned subsidiary, is a plant biotechnology company focused on tobacco harm reduction products and smoking cessation products produced from modifying the nicotine content in tobacco plants through genetic engineering and plant breeding. The Company owns or exclusively controls 111 issued patents and an additional 38 patent applications. Goodrich Tobacco Company, LLC ("Goodrich Tobacco") and Hercules Pharmaceuticals, LLC ("Hercules Pharmaceuticals") are subsidiaries of 22nd Century Ltd. Goodrich Tobacco is focused on commercial tobacco products and potential modified risk cigarettes. Hercules Pharmaceuticals is focused on *X-22,* a prescription smoking cessation aid currently in development.

The Company is primarily involved in the following activities:

- The worldwide licensing of 22nd Century Ltd's technology, proprietary tobaccos, trademarks and brands;

- The development of its potential modified risk tobacco products;

- The development of its *X-22* prescription smoking cessation aid;

- The pursuit of necessary regulatory approvals and clearances at the U.S. Food and Drug Administration (the "FDA") to market *X-22* as a prescription smoking cessation aid and *BRAND A and BRAND B* as Modified Risk Cigarettes in the U.S.;

- The manufacture, marketing and distribution of *RED SUN* and *MAGIC* proprietary cigarettes; and

- The production of *SPECTRUM* research cigarettes for the National Institute on Drug Abuse ("NIDA").

We have operated at a loss since 2006 when we increased our research and development expenditures. The Company is in the process of transitioning from researching and developing our proprietary technology and tobaccos to commercializing our own technology and products. Our prospects depend on our ability to generate and sustain revenues from (i) the international licensing of our proprietary tobacco, technology and products; (ii) the domestic and international sales of our brands *RED SUN* and *MAGIC*; and (iii) the further development of our potential modified risk tobacco products and our *X-22* smoking cessation aid. Our ability to generate meaningful revenue from our potential modified risk tobacco products in the United States depends on obtaining FDA authorization to market these products as modified risk, and our ability to generate meaningful revenue in the United States from *X-22* depends on FDA approval. If these products are authorized and approved by the FDA, we must still meet the challenges of successful marketing, distribution and consumer acceptance.

Licensing

The Company has been in negotiations with various parties in the tobacco and pharmaceutical industries for licensing its technology and products since early 2012. Management expects to finalize one or more licensing agreements in the third quarter of 2013.

Potential Modified Risk Cigarettes and the Tobacco Control Act

The 2009 Family Smoking Prevention and Tobacco Control Act ("Tobacco Control Act") granted the FDA authority over the regulation of all tobacco products. While it prohibits the FDA from banning cigarettes outright, it allows the FDA to require the reduction of nicotine or any other compound in tobacco and cigarette smoke. The Tobacco Control Act also banned all sales in the U.S. of cigarettes with characterizing flavors (other than menthol). As of June 2010, all cigarette companies were required to cease the use of the terms "low tar," "light" and "ultra light" in describing cigarettes sold in the U.S. Besides numerous other regulations, including certain marketing restrictions, for the first time in history, a U.S. regulatory agency will scientifically evaluate cigarettes that may pose lower health risks as compared to conventional cigarettes.

The Tobacco Control Act establishes procedures for the FDA to regulate the labeling and marketing of modified risk tobacco products, which includes cigarettes that (i) reduce exposure to tobacco toxins and (ii) are reasonably likely to pose lower health risks as compared to conventional cigarettes ("Modified Risk Cigarettes"). The Tobacco Control Act requires the FDA to issue specific regulations or guidance regarding applications that must be submitted to the FDA for the authorization to label and market Modified Risk Cigarettes. On March 30, 2012, the FDA issued *Modified Risk Tobacco Product Applications Draft Guidance.* We believe that two types of our cigarettes in development which we refer to as *BRAND A* and *BRAND B*, may qualify as Modified Risk Cigarettes. Compared to commercial cigarettes, the tobacco in *BRAND A* has approximately 95% less nicotine than tobacco in cigarettes previously marketed as "light" cigarettes, and *BRAND B*'s smoke contains an extraordinary low amount of "tar" per milligram of nicotine.

Goodrich Tobacco intends to seek FDA authorization to market *BRAND A* and *BRAND B* as Modified Risk Cigarettes and expect to file applications with the FDA over the next 12 months. After filing our modified risk applications with the FDA, we will need significant additional capital to complete the FDA authorization process for our Modified Risk Cigarettes. The exact amount of capital is currently unknown since it is uncertain how many exposure studies the FDA will require for *BRAND A* and *BRAND B*. However, we estimate that the cost of completing the FDA authorization process for each of our potential Modified Risk Cigarettes to be at least $2 million. We believe that *BRAND A* and *BRAND B* will achieve market share in the global cigarette market among smokers who will not quit but are interested in reducing the harmful effects of smoking. There is no guarantee that we will (i) have sufficient capital to complete the FDA authorization process for our potential Modified Risk Cigarettes, (ii) obtain FDA authorization to market *BRAND A or BRAND B* as Modified Risk Cigarettes, or (iii) achieve significant share of the market even with FDA authorization to market our products as Modified Risk Cigarettes.

The Center for Tobacco Products of the FDA requested to have a meeting with 22nd Century to discuss the company's proprietary products. Management met with the FDA on June 17, 2013 and explained to the agency how the company's technology is employed, including that the resulting tobacco varieties can be produced without them being "genetically modified" under U.S. regulations.

X-22

The *X-22* therapy protocol utilized in the Company's sponsored Phase II-B clinical trial calls for the patient to smoke our very low nicotine ("VLN") cigarettes over a six-week treatment period to facilitate the goal of the patient quitting smoking by the end of the treatment period. We believe this therapy protocol has been successful in independent clinical trials because VLN cigarettes made from our proprietary tobacco satisfy smokers' cravings for cigarettes while (i) greatly reducing nicotine exposure and nicotine dependence and (ii) extinguishing the association between the act of smoking and the rapid delivery of nicotine. *X-22* involves the same smoking behavior as conventional cigarettes and because patients are simply switching to VLN cigarettes, *X-22* does not expose the smoker to any new drugs or new side effects. Our Investigational New Drug Application for *X-22*, a kit of VLN cigarettes, was cleared by the FDA in July 2011. Our *X-22* Phase II-B clinical trial was completed in the first quarter of 2012 and did not demonstrate a statistically significant difference in quitting between *X-22* and the active control, a cigarette containing conventional nicotine levels. However, the median number of *X-22* cigarettes smoked during the trial was significantly reduced compared to patients' baseline of usual brand of cigarettes. In evaluating the results of this trial, we believe we may have reduced the nicotine content of *X-22* by too great a percentage, to a level less than half the nicotine content of VLN cigarettes used in various independent smoking-cessation clinical trials that have demonstrated that use of VLN cigarettes increases quit rates.

In contrast to the results of the Company's Phase II-B trial results, various independent studies have demonstrated that VLN cigarettes, whether used alone or in conjunction with nicotine replacement therapy (NRT) or varenicline (branded by Pfizer Inc. as CHANTIX and CHAMPIX outside the U.S.), increase quit rates. Due to the limited effectiveness and/or serious side effects of existing FDA-approved smoking cessation products, we believe that if additional clinical trials demonstrate increased smoking cessation rates, *X-22* can capture a share of this market by replacing sales and market share from existing smoking cessation aids and expanding the smoking cessation market by encouraging more smokers to attempt to quit smoking. We are currently in the process of identifying potential joint venture partners to fund the remaining *X-22* clinical trials. We estimate the cost of completing the remaining *X-22* clinical trials to be approximately $14 million and the marketing expenses to bring *X-22* to market in the U.S. are estimated to be approximately $5 million. There is no guarantee that we will (i) obtain the funds necessary to complete additional clinical trials, (ii) identify potential joint venture partners to fund the remaining *X-22* clinical trials, (iii) obtain FDA approval, or (iv) achieve significant share of the smoking cessation market even with FDA approval.

We continue to believe that our VLN cigarettes are effective as a smoking cessation aid. However, we have suspended sponsoring further *X-22* clinical trials pending a complete analysis of results of two independent smoking-cessation trials that were completed in 2012 (ClinicalTrials.gov Identifiers NCT01050569 and NCT01250301), which utilized a different version of our VLN cigarette with a nicotine content similar to those used in previous successful smoking-cessation trials and higher than that used in our own sponsored Phase II-B trial. A portion of the results of these two trials has been disclosed at the annual meeting of the Society for Research on Nicotine and Tobacco ("SRNT") held in Boston on March 13 to 16, 2013.

Regarding the NCT01250301 clinical trial, certain results were disclosed in a presentation at the SRNT annual meeting given by Hayden McRobbie, Ph.D. of Queen Mary University of London, Wolfson Institute of Preventative Medicine, who was the principal investigator of the study. Pfizer Inc. was also a collaborator of the study. This clinical trial evaluated whether the use of our VLN cigarette in combination with Chantix® or in combination with nicotine replacement therapy ("NRT") increases abstinence rates over the use of Chantix® or the use of NRT. The study included one hundred smokers who were prescribed varenicline and one hundred smokers who were prescribed NRT. Half the smokers of each of these groups were randomly selected to also use our VLN cigarettes for the first 2 weeks of treatment. All smokers received 9 weekly behavioral support sessions throughout the 12-week study period. The group that used our VLN cigarettes had a 70% quit rate one week after stopping VLN cigarette use compared to a 53% quit rate of the group not using VLN cigarettes after week 1 (p=0.02). The group that used our VLN cigarettes had a 64% four-week continuous abstinence rate during weeks 3 to 6 compared to a 50% four-week continuous abstinence rate during weeks 1 to 4 (p=0.06). Quit rates at 12 weeks post treatment were not reported in the presentation.

Regarding the NCT01050569 clinical trial, results in terms of gender differences in abstinence rates were disclosed at the SRNT annual meeting. Dorothy Hatsukami, PhD, was principal investigator of the study. Within the female population at the end of treatment (week 12), the group assigned our VLN cigarette had the highest continuous abstinence rate; the group assigned concurrent use of our VLN cigarette with a 21mg nicotine patch had the next highest continuous abstinence rate followed by the group assigned a 21mg nicotine patch. Within the male population at the end of treatment (week 12), the group assigned a 21mg nicotine patch had the highest continuous abstinence

rate; the group assigned concurrent use of our VLN cigarette with a 21mg nicotine patch had the next highest continuous abstinence rate followed by the group assigned our VLN cigarette.

The full set of results of these 2 independent clinical trials will be compared to results of other independent clinical trials of our VLN cigarettes and results of our Phase II-B trial to determine which variables optimize cessation, including nicotine content. One preliminary hypothesis, in conjunction with results of various other studies of our VLN cigarettes, is that having two types of prescription VLN cigarettes available may be advantageous for increased smoking cessation in the general population; one having a higher nicotine content than the other. Upon identifying a suitable joint venture partner to fund further *X-22* clinical trials, we will then request a meeting with the FDA, and thereafter we may resume our own sponsored *X-22* clinical trials.

RED SUN and MAGIC Cigarettes

Goodrich Tobacco has thus far had its cigarette brands contract manufactured by a non-participating manufacturer to the “Master Settlement Agreement” or “MSA,” a settlement among 46 states and the tobacco industry administered by the National Association of Attorneys General (“NAAG”). Our subsidiary, Goodrich Tobacco, introduced in a limited capacity two super-premium priced cigarette brands, *RED SUN* and *MAGIC*, into the U.S. market in the first quarter 2011. There have been *de minimis* sales of these brands in 2011 and 2012 since we intentionally have not expanded marketing and distribution of these brands to facilitate Goodrich Tobacco becoming a participating manufacturer of the MSA. The more *RED SUN* and *MAGIC* sold while these brands are produced by a non-participating manufacturer, the greater the settlement costs Goodrich Tobacco likely has to pay to become a participating manufacturer of the MSA. On January 23, 2013, Goodrich Tobacco applied to the Alcohol and Tobacco Tax Trade Bureau (“TTB”) for a federal permit to manufacture its own tobacco products. Being a federally licensed tobacco product manufacturer is a primary requirement of becoming a participating manufacturer of the MSA. Goodrich Tobacco’s application has been deemed complete by the TTB but we are awaiting a field inspection of our manufacturing facility for approval.

On February 26, 2013, Goodrich Tobacco applied to the NAAG to become a participating manufacturer to the MSA. Both of these measures, if approved by the TTB and NAAG, will greatly facilitate the sales and distribution potential of *RED SUN* and *MAGIC*. Goodrich Tobacco expects its cigarette factory startup costs to be approximately $750,000 and plans to lease a portion of the machinery required. The costs associated with becoming a member of the MSA including settlement costs are expected to be approximately $100,000.

In June 2013, 22nd Century and a U.S. tobacco product manufacturer that is a participating member of the MSA entered into a confidential non-binding letter of intent. The parties are continuing discussions and evaluating collaborative business ventures. In the third quarter of 2013, Goodrich Tobacco granted a Dutch company exclusive distribution rights to its *DUTCH MAGIC* brand in The Netherlands, Belgium and Luxemburg, known as Benelux. The brand's packaging and product specifications are being finalized and Goodrich Tobacco expects to export the tobacco for *DUTCH MAGIC* in the third quarter of 2013.

SPECTRUM Government Research Cigarettes

As a subcontractor to RTI International ("RTI") in RTI's contract with The National Institute on Drug Abuse ("NIDA") for the Research Cigarette Option, we supply modified nicotine (from very low to high) cigarettes to NIDA. These research cigarettes are distributed under the mark *SPECTRUM*. The Company has delivered approximately 12 million *SPECTRUM* cigarettes over the last two years and expects to ship an additional 5,500,000 *SPECTRUM* cigarettes in 2013.

Annual Report on Form 10-K

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2012 provides additional information about our business, operations and financial condition.

Three Months Ended June 30, 2013 Compared to Three Months Ended June 30, 2012

Revenue

We had no revenue in the three months ended June 30, 2013 and 2012.

Research and development expense

Research and development (R&D) expense was $165,087 in the three months ended June 30, 2013, a decrease of $76,177, or 32%, from $241,264 in the three months ended June 30, 2012. This decrease was primarily a result of stock based compensation of $90,135 during the second quarter of 2012 as compared to $ 0 during the second quarter of 2013.

General and administrative expense

General and administrative expense was $1,400,515 in the three months ended June 30, 2013, an increase of $348,383, or 33%, from $1,052,132 in three months ended June 30, 2012. The increase was primarily due to an increase of $852,900 in equity based payments for outside services, mainly investor relations, offset by a decrease in equity based employee compensation of $512,301 for the second quarter of 2013 as compared to the second quarter of 2012.

Sales and marketing costs

Sales and marketing costs were $0 in the three months ended June 30, 2013, a decrease of $30,847, or 100%, from $30,847 in three months ended June 30, 2012. We do not intend to incur any significant sales and marketing costs until the successful national distribution of our products in the U.S.

Amortization and depreciation expense

Amortization and depreciation expense relates almost entirely to capitalized patent and trademark costs. Amortization and depreciation expense increased 14% in the three months ended June 30, 2013 to $56,976, up from $49,958 in the three months ended June 30, 2012. This increase of $7,018 is mainly due to our additional investment in patents and trademarks during 2012 of approximately $163,000 and during the first six months of 2013 of approximately $100,000.

Gain warrant liability – derivative

The gain of $1,258,502 for the second quarter of 2013 represents the decrease in the fair value of the warrants during the period and is primarily the result of a decrease in the Company's underlying stock price from $0.88 per share at March 31, 2013 as compared to $0.71 per share at June 30, 2013. In connection with the May 2012 private placement, we issued warrants which were accounted for as derivatives and upon issuance a liability at the estimated fair value was recorded. At the date of issuance of these warrants the value was estimated to be $1,841,000 which exceeded the total consideration received in the offering by $814,500 resulting in an immediate charge to expense for this amount. This charge offset the gain of $2,689,899 resulting from the decrease in the estimated fair value of these warrants and other previously issued warrants during the three month period ending June 30, 2012. Future quarters will reflect a gain or loss based on the change in the fair value of the derivatives, which is based on a number of factors including the Company's stock price.

Interest expense and amortization of debt discount and expense

Interest expense and amortization of debt discount and debt issuance costs decreased in the three months ended June 30, 2013 to $81,879 from $359,431 in the three months ended June 30, 2012. This decrease of $277,552 or 77% was primarily the result of a decrease of $344,657 in the amortization of debt discount and debt issuance costs related to Convertible Notes issued on December 14, 2011, which were fully amortized in December 2012. Amortization of debt discount of $55,336 during the second quarter of 2013 pertains only to the Convertible Notes issued on August 9, 2012, which were not outstanding during the 3 months ended June 30, 2012.

Net loss

We had a net loss in the three months ended June 30, 2013 of $445,955 as compared to net income of $141,767 in the three months ended June 30, 2012. The decrease of $587,722, or 415%, was mainly a result of an increase in equity based payments for outside services and a decrease in the gain related to the warrant liability partially offset by decreases in equity based compensation expense and interest expense and amortization of debt discount and expense.

Six Months Ended June 30, 2013 Compared to Six Months Ended June 30, 2012

Revenue

We had no revenue in the six months ended June 30, 2013 and 2012.

Research and development expense

Research and development (R&D) expense was $355,835 in the six months ended June 30, 2013, an increase of $26,837, or 8%, from $328,998 in the six months ended June 30, 2012. This increase was primarily the result of an increase in research and development contract costs of $56,231 partially offset by a decrease in equity based employee compensation of $33,512 during the six months ended June 30, 2013 as compared to the six months ended June 30, 2012.

General and administrative expense

General and administrative expense was $2,548,647 in the six months ended June 30, 2013, an increase of $1,186,725, or 87%, from $1,361,922 in six months ended June 30, 2012. The increase was primarily due to increases in equity based payments for outside services of $839,900, mainly investor relations, equity based employee compensation of $218,836 and professional fees of $61,455 for the six months ended June 30, 2013 as compared the six months ended June 30, 2012.

Sales and marketing costs

Sales and marketing costs were $0 in the six months ended June 30, 2013, a decrease of $34,682, or 100%, from $34,682 in six months ended June 30, 2012. We do not intend to incur any significant sales and marketing costs until the successful national distribution of our products in the U.S.

Amortization and depreciation expense

Amortization and depreciation expense relates almost entirely to capitalized patent and trademark costs. Amortization and depreciation expense increased 14% in the six months ended June 30, 2013 to $109,600, up from $95,916 in the six months ended June 30, 2012. This increase of $13,684 is mainly due to our additional investment in patents and trademarks during 2012 of approximately $163,000 and during the first six months of 2013 of approximately $100,000.

Gain warrant liability – derivative

In a private placement in the first quarter of 2013, we issued warrants which were accounted for as derivatives and upon issuance a liability at the estimated fair value was recorded. At the date of issuance of these warrants the value exceeded that total consideration received by an aggregate of $3,987,655 resulting in an immediate charge to expense for this amount. This charge was offset by a gain on warrant liability of $4,229,982 resulting from the decrease in the estimated fair value during the six months ended June 30, 2013 for all warrants we have issued so the net gain for the period was $242,327. The gain on warrant liability of $4,229,982 was primarily the result of an approximate $3.6 million decrease in the warrant liability attributable to the warrants issued in the January 11, 2013 Series A-1 preferred stock private placement. This $3.6 million decrease resulted from a decrease in the underlying price of the Company's stock from $1.00 per share on the January 11, 2013 valuation date as compared to the Company's stock price of $0.71 per share at June 30, 2013. Secondarily, a decrease in the underlying price of the Company's stock from $0.75 at December 31, 2102 as compared to $0.71 at June 30, 2013 and the passage of time bringing the outstanding warrants six months closer to their expiration date also contributed to the gain on warrant liability. In connection with the May 2012 private placement, we issued warrants which were accounted for as derivatives and upon issuance a liability at the estimated fair value was recorded. At the date of issuance of these warrants the value was estimated to be $1,841,000 which exceeded the total consideration received in the offering by $814,500 resulting in an immediate charge to expense for this amount. This charge offset the gain of $1,446,899 resulting from the decrease in the estimated fair value of these warrants and other previously issued warrants during the six month period ending June 30, 2012 so the net gain for the period was $632,399. Future periods will reflect a gain or loss based on the change in the fair value of the derivatives, which is based on a number of factors including the Company's stock price.

Interest expense and amortization of debt discount and expense

Interest expense and amortization of debt discount and debt issuance costs decreased in the six months ended June 30, 2013 to $187,403 from $793,327 in the six months ended June 30, 2012. This decrease of $605,924 or 76% was primarily the result of a decrease of $766,274 in the amortization of debt discount and debt issuance costs related to Convertible Notes issued on December 14, 2011, which were fully amortized in December 2012. Amortization of debt discount during the six months ended June 30, 2013 pertains only to the Convertible Notes issued on August 9, 2012, which were not outstanding during the 6 months ended June 30, 2012.

Net loss

We had a net loss in the six months ended June 30, 2013 of $2,959,158 as compared to a net loss of $1,982,446 in the six months ended June 30, 2012. The decrease of $976,712, or 49%, was mainly a result of an increase in equity based payments for outside services, equity based compensation expense and professional fees and a decrease in the gain related to the warrant liability partially offset by a decrease in interest expense and amortization of debt discount and expense.

Liquidity and Capital Resources

Summary of Balances and Recent Sources and Uses

As of June 30, 2013, we had negative working capital of approximately $.49 million compared to negative working capital of approximately $3.32 million at December 31, 2012. The $2.83 million decrease in our negative working capital position was mainly a result of the net proceeds received in the preferred stock private placement used to satisfy certain financial obligations, the conversion to common stock of the remaining convertible notes from the December 14, 2011 issue and net proceeds received from the exercise of warrants.

Cash demands on operations

Since January 1, 2011 we operated at a loss and operating activities consumed more than $6.72 million in cash. Cash on hand at June 30, 2013 of $451,730 is insufficient to fund operations and meet our obligations as they come due. The Company has suspended clinical trials for *X-22* and is seeking licensing agreements for its products with both domestic and international businesses. At June 30, 2013, the Company had current assets of $1,788,575 and current liabilities of $2,278,807.

On January 11, 2013, the Company closed a private placement and realized net proceeds of $2.035 million. From January 1, 2013 through February 6, 2013, the Convertible Notes with a carrying value at December 31, 2012 of approximately $1.41 million were converted into common stock and warrants. During June and July of 2013 the Company realized net proceeds of $.542 million and $.607 million, respectively, in cash from the exercise of warrants. On August 1, 2013, the Company entered into a Warrant Exercise Agreement with the holders of its Series A Warrants and Series C Warrants for such holders to exercise a portion of such Series C Warrants to acquire an aggregate of 1,666,666 shares of the Company's common stock for a cash payment of $1.0 million. While these steps improved the Company's financial position; we will need additional capital or one or more licensing arrangements for our technology and products in order to meet cash requirements to fund operations and meet our obligations during the next 12 months. Excluding contract growing of our proprietary tobacco with farmers and extraordinary expenses, such as clinical trials and factory setup costs, our monthly cash expenditures are approximately $120,000. In the event the Company does not enter into an out-licensing agreement with a third party, approximately $2.5 million of additional capital is required through the next 12-month period, which includes paying approximately $1 million of obligations that will become due. The Company expects its cigarette factory startup costs to require an additional $750,000 of capital. It plans to lease a portion of the machinery required. There can be no assurance that the Company will be able to raise sufficient capital or obtain a licensing agreement.

Other than the R&D agreement at the University of Virginia, the Company currently has no other substantial third-party R&D commitments requiring funding. The Company is carrying out field trials on new tobacco plant lines and a minimal amount of other R&D in the third quarter of 2013, which is not expected to exceed $100,000. Upon the required funding, we expect to carry out exposure studies for our Modified Risk cigarette candidates and will carry out additional clinical trials for *X-22* if Hercules Pharmaceuticals, our subsidiary, identifies a joint venture partner willing to fund these trials.

The ability to complete additional equity or debt financings on acceptable terms will depend on a number of factors, including the general performance of the capital markets, the Company's progress in the manufacture, distribution and sale of its products, licensing of its technology, products and tobacco, and results on independent clinical trials utilizing the Company's products. Failure to license the Company's technology, products and tobacco or to raise sufficient capital would significantly increase the risk that we would be unable to continue operations. To the extent that we raise additional funds through collaboration and licensing arrangements, it may be necessary to relinquish some rights to our technology, tobacco or products or grant licenses on terms that are not favorable to us.

Net Cash used in Operating Activities

In the first six months of 2013, $1,507,064 of cash was used in operating activities compared to $1,032,116 of cash used in operating activities in the first six months of 2012. This increase in use of cash in operations of $474,948 was partially due to the increase in the cash portion of the net loss in the first six months of 2013 as compared to the first six months of 2012 of $132,760. The balance of the increase in use of cash in operations was a result of $342,188 more cash used for working capital components related to operations.

Net Cash used in Investing Activities

In the first six months of 2013, we used $14,620 of cash related to third party costs incurred for patents and trademarks as compared to $0 used in the first six months of 2012. In addition, costs of $14,398 were incurred for the acquisition of office furniture and fixtures as compared to $0 for the six months ended June 30, 2012.

Net Cash from Financing Activities

During the first six months of 2013, we generated approximately $1,988,000 from our financing activities mainly as a result of net cash proceeds received from the preferred stock issue in the amount of $2.035 million, net cash proceeds received form the exercise of warrants in the amount of $.542 million and proceeds received from the issuance of notes payable in the amount of $150,000. These proceeds raised were partially offset by payments on notes payable, convertible notes payable and net payments to related parties and officers in the amount of $395,286, $339,250 and $4,733, respectively. During the first six months of 2012, we generated net cash of approximately $782,000 primarily as a result of net proceeds received in a May 2012 private placement.

The Company will need to raise additional capital or enter into a licensing agreement to continue operations and make payments on obligations that are and become due in 2013. The ability to complete these financings on acceptable terms will depend on a number of factors, including the general performance of the capital markets, the Company's progress in the manufacture, distribution and sale of its products, and results on independent smoking cessation clinical trials. Failure to raise sufficient funds would significantly increase the risk that we would be unable to continue operations. Financing may not be available on acceptable terms, or at all, and our failure to raise additional capital when needed could materially and adversely impact our plans of commercializing our products, our financial condition and results of operations, and our ability to continue as a going concern. Any equity financing will be dilutive to our existing shareholders' respective ownership.

Critical Accounting Policies and Estimates

Accounting principles generally accepted in the United States of America, or U.S. GAAP, require estimates and assumptions to be made that affect the reported amounts in our consolidated financial statements and accompanying notes. Some of these estimates require difficult, subjective and/or complex judgments about matters that are inherently uncertain and, as a result, actual results could differ from those estimates. Due to the estimation processes involved, the following summarized accounting policies and their application are considered to be critical to understanding our business operations, financial condition and results of operations.

Revenue Recognition

The Company recognizes revenue at the point the product is shipped to a customer and title has transferred. Revenue from the sale of the Company's products is recognized net of cash discounts, sales returns and allowances. Federal cigarette excise taxes are included in net sales and accounts receivable billed to customers, except on sales of *SPECTRUM* and exported cigarettes in which such taxes do not apply.

The Company was chosen to be a subcontractor for a 5-year government contract between RTI International ("RTI") and the National Institute on Drug Abuse ("NIDA") to supply NIDA research cigarettes. These government research cigarettes are distributed under the mark *SPECTRUM*. The Company has delivered approximately 12 million *SPECTRUM* cigarettes during the years ended December 31, 2012 and 2011. There were no *SPECTRUM* cigarettes delivered during the six months ended June 30, 2013 and 2012. Future revenue under this sub-contract arrangement is expected to be related to the delivery of *SPECTRUM* and will be recognized at the point the product is shipped and title has transferred.

Impairment of Long-Lived Assets

We review the carrying value of amortizing long-lived assets whenever events or changes in circumstances indicate that the historical cost-carrying value of an asset may no longer be appropriate. We also assess recoverability of the asset by estimating the future undiscounted net cash flows expected to result from the asset, including eventual disposition. If the estimated future undiscounted net cash flows are less than the carrying value of the asset, an impairment loss is recorded equal to the difference between the asset's carrying value and its fair value. We have not recognized any impairment losses during the year ended December 31, 2012 or the six months ended June 30, 2013.

Amortization Estimates of Intangible Assets

We generally determine amortization based on the estimated useful lives of the assets and record amortization expense on a straight-line method over such lives. The remaining life of the patent is generally used to determine the estimated useful life of the related patent costs.

Valuation of our Equity Securities

The Company uses a fair-value based method to determine compensation for all arrangements under which Company employees and others receive shares, options or warrants to purchase common shares of 22nd Century Group. Stock based compensation expense is recorded over the requisite service period based on estimates of probability and time of achieving milestones and vesting. For accounting purposes, the shares will be considered issued and outstanding upon vesting.

Convertible Debt

When the convertible feature of the conventional convertible debt is issued, the embedded conversion feature is evaluated to determine if bifurcation and derivative treatment is required whether there is a beneficial conversion feature. When the convertible debt provides for an effective rate of conversion that is below market value, this feature is characterized as a beneficial conversion feature (“BCF"). Prior to the determination of the BCF, the proceeds from the debt instrument were first allocated between the convertible debt and any embedded or detachable free standing instruments that are included, such as common stock and warrants. We record a BCF as a debt discount pursuant to FASB ASC Topic 470-20, “Debt with Conversion and Other Options”. In those circumstances, the convertible debt will be recorded net of the discount related to the BCF. We amortize the discount to interest expense over the life of the debt.

For the convertible notes issued December 2011 and August 2012, we recorded the OID and the BCF related to these convertible notes as a debt discount and recorded the convertible notes net of the discount related to both the OID and the BCF. Debt discount is amortized to interest expense over the life of the debt.

Preferred Stock

The shares of Series A-1 Preferred Stock are initially convertible into shares of the Company's common stock at a conversion price of $0.60 per share (the "Conversion Price"), subject to future adjustments. The Series A-1 Preferred Stock will pay a 10.0% annual cash dividend, which may be payable in shares of our common stock in certain circumstances, and will have a liquidation preference equal to the stated value of the Series A-1 Preferred Stock of $1,000 per share plus any accrued and unpaid dividends thereon. The Series A-1 Preferred Stock has no voting rights. The Conversion Price of the Series A-1 Preferred Stock is subject to adjustment.

The preferred stockholders do not have mandatory redemption rights, nor does the Company have an unconditional obligation to issue a variable number of shares. Further, there is a limit on the number of shares that are issuable upon conversion. Accordingly, the Series A-1 Preferred Stock is classified as permanent equity. Based on the fact that the host instrument is more akin to equity, it was further determined that bifurcation of the embedded conversion feature is not required.

As of June 7, 2013, all 2,500 outstanding shares of Series A-1 Preferred Stock were converted into an aggregate of 4,166,666 shares of common stock of the Company at $0.60 per share and no shares of preferred stock remain outstanding.

Income taxes

The Company is required to recognize deferred tax assets and liabilities for any basis differences in its assets and liabilities between tax and GAAP reporting, and for operating loss and credit carry-forwards. In light of the Company's history of cumulative losses, management has determined that is it more likely than not that its net deferred tax asset will not be realized. Accordingly, the Company established a valuation allowance to fully offset its net deferred tax asset as of June 30, 2013 and December 31, 2012.

Derivative Financial Instruments

We do not use derivative instruments to hedge exposures to cash flow, market or foreign currency risks. We evaluate all of our financial instruments to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. For derivative financial instruments that are accounted for as liabilities, the derivative instrument is initially recorded at its fair market value and then is revalued at each reporting date, with changes in fair value reported in the consolidated statement of operations. The methodology for valuing our outstanding warrants classified as derivative instruments utilizes a lattice model approach which includes probability weighted estimates of future events including volatility of our common stock. A financial asset or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement. The warrant liability is measured at fair value using certain estimated factors such as volatility and probability which are classified within Level 3 of the valuation hierarchy. Significant unobservable inputs are used in the fair value measurement of the Company's derivative warrant liabilities include volatility. Significant increases (decreases) in the volatility input would result in a significantly higher (lower) fair value measurement. A 10% increase or decrease in the volatility factor or underlying stock price used as of June 30, 2013 would have the impact of increasing or decreasing the liability by approximately $1.5 million and $1.3 million, respectively.

The classification of derivative instruments, including whether such instruments should be recorded as liabilities or equity, is evaluated at the end of each reporting period. Derivative instrument liabilities are classified in the balance sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument could be required within twelve months of the balance sheet date.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements as defined by Item 303(a)(4) of Regulation S-K.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

As a smaller reporting company, we are not required to present this information.

Item 4. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures:

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in its Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to the Company's management, including the Company's chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Our chief executive officer and chief financial officer, after evaluating the effectiveness of the Company's "disclosure controls and procedures" (as defined in the Securities Exchange Act of 1934 (Exchange Act) Rules 13a-15(e) or 15d-15(e)) as of the end of the period covered by this quarterly report, have concluded that our disclosure controls and procedures were not effective and that material weaknesses described in our Form 10-K for the fiscal year ended December 31, 2012 exist in our internal control over financial reporting based on their evaluation of these controls and procedures as required by paragraph (b) of Exchange Act Rules 13a-15 or 15d-15.

(b) Changes in Internal Control over Financial Reporting:

There were no changes in the Company's internal control over financial reporting during the second quarter of 2013 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Part II. OTHER INFORMATION

Item 1. Legal Proceedings

Neither 22nd Century Group nor its subsidiary are involved in any material legal proceedings.

Item 1A. Risk Factors

Our risk factors have not changed materially from those disclosed in our annual report on Form 10-K for the year ended December 31, 2012 filed on March 18, 2013.

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

On January 11, 2013, we entered into and closed the transactions described in a Securities Purchase Agreement with certain accredited investors identified therein (collectively, the "Purchasers"), whereby we sold 2,500 shares of newly created Series A-1 10% Convertible Preferred Stock (the "Series A-1 Preferred Stock") and warrants for an aggregate purchase price of $2,500,000.

From April 4 2013 through June 7, 2013, all of the outstanding shares of Series A-1 Preferred Stock were converted into an aggregate of 4,166,666 shares of the Company's common stock at a conversion price of $0.60 per share. Following the conversion of the shares of Series A-1 Preferred Stock into common stock, no shares of Series A-1 Preferred Stock remain outstanding.

From June 10 2013 through July 23 2013, all of the outstanding Series B Warrants were converted into an aggregate of 2,083,334 shares of the Company's common stock and resulted in gross proceeds to the Company of $1.25 million. Following the conversion of the Series B Warrants into common stock, no Series B Warrants remain outstanding.

The Series A-1 Preferred Stock and the warrants (including the shares issued upon exercise) were offered and sold pursuant to an exemption from the registration requirements under Sections 4(2) of the Securities Act.

On May 7, 2013, the Company issued an aggregate of one hundred sixty thousand (160,000) shares of common stock, par value $0.00001 per share, of the Company pursuant to an Agreement dated May 7, 2013, between the Company and New Castle Consulting, LLC ("New Castle") for consulting services provided by New Castle. This sale was offered and sold in reliance on the exemption from registration afforded by Section 4(2) under the Securities Act of 1933, as amended.

On May 10, 2013 and June 7, 2013, the Company issued an aggregate of three hundred fifty thousand (350,000) shares of common stock, par value $0.00001 per share, of the Company pursuant to an Agreement dated April 3, 2013 and amended on July 5, 2013, between the Company and Chardan Capital Markets, LLC ("Chardan") for investor relation services provided by Chardan. This sale was offered and sold in reliance on the exemption from registration afforded by Section 4(2) under the Securities Act of 1933, as amended.

On June 7, 2013, the Company issued an aggregate of eight hundred sixty thousand (860,000) shares of common stock, par value $0.00001 per share, of the Company pursuant to an Agreement dated June 7, 2013, between the Company and Crede Capital Group, LLC ("Crede") for investor relation services provided by Crede. This sale was offered and sold in reliance on the exemption from registration afforded by Section 4(2) under the Securities Act of 1933, as amended.

Item 3. Defaults Upon Senior Securities

None

Item 4. Mine Safety Disclosures

None

Item 5. Other Information

On August 1, 2013, the Company entered into a Warrant Exercise Agreement with the holders of its Series A Warrants and Series C Warrants for such holders to exercise a portion of such Series C Warrants to acquire an aggregate of 1,666,666 shares of the Company's common stock for a cash payment to the Company of One Million Dollars ($1,000,000). Prior to the Company and such holders of the Series A Warrants and the Series C Warrants entering into such Warrant Exercise Agreement, the Series A Warrants and the Series C Warrants could have been exercised by such holders on an entirely cashless basis. In exchange for the cash exercise of such portion of the Series C Warrants, the Company reduced the exercise price of all of the Series A Warrants and Series C Warrants to $0.60 per share. In addition, if on a specified date in the future when the shares of common stock of the Company acquired upon this cash exercise of the Series C Warrants become freely tradable pursuant to Rule 144 of the Securities Act of 1933, as amended, the Company's common stock (as measured by the five trading days before such date) is less than $1.31 per share (the "Measurement Price"), then the Company must reimburse the holders of these warrants up to an

amount equal to difference between $1.31 and the Measurement Price (subject to a floor of $0.60 per share) multiplied by the number of shares of common stock acquired upon the cash exercise of such Series C Warrants pursuant to the terms of the Warrant Exercise Agreement. Notwithstanding the foregoing, the Company has no obligation to pay such amounts until and unless the holders of the shares actually incur a loss on the sales of such shares of common stock for a price below the Measurement Price. The description of the agreement is only a summary and is qualified in its entirety to the agreement filed herewith as Exhibit 10.1.

Item 6. Exhibits

Exhibit 10.1	Agreement dated August 1, 2013 between the Company and the holders of the Company's Series A and C Warrants.
Exhibit 31.1	Section 302 Certification – Chief Executive Officer
Exhibit 31.2	Section 302 Certification – Chief Financial Officer
Exhibit 32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002.
Exhibit 101	Interactive data files formatted in XBRL (eXtensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Cash Flows, and (iv) the Notes to the Consolidated Financial Statements.

101.INS XBRL Instance Document

101.SCH XBRL Taxonomy Extension Schema Document

101.CAL XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF XBRL Taxonomy Extension Definition Linkbase Document

101.LAB XBRL Taxonomy Extension Label Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

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:

22nd CENTURY GROUP, INC.

Date: August 5, 2013 /s/ Joseph Pandolfino
Joseph Pandolfino
Chief Executive Officer

Date: August 5, 2013 /s/John T. Brodfuehrer
John T. Brodfuehrer
Chief Financial Officer

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