

22nd Century Group, Inc.  
Form 10-Q  
August 14, 2014

**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, 2014**

**“ 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)*

<b><u>Nevada</u></b>	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  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  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

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

As of August 11, 2014, there were 59,601,688 shares of common stock issued and outstanding.

**22nd CENTURY GROUP, INC.**

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**22nd CENTURY GROUP INC. AND SUBSIDIARIES****CONSOLIDATED BALANCE SHEETS****June 30, 2014 and Comparative Figures at December 31, 2013**

	June 30, 2014 (unaudited)	December 31, 2013
<b>ASSETS</b>		
Current assets:		
Cash	\$4,172,795	\$5,830,599
Accounts receivable	16,114	-
Due from related party	44,569	42,069
Due from officers	-	7,471
Inventory, net	1,732,977	1,406,280
Machinery and equipment held for resale	-	457,696
Prepaid expenses and other assets	251,095	-
Total current assets	6,217,550	7,744,115
Machinery and equipment, net	2,952,237	2,997,760
Other assets:		
Patent and trademark costs, net	1,727,943	1,544,869
Equity investment and advance	342,894	-
Total other assets	2,070,837	1,544,869
Total assets	\$ 11,240,624	\$ 12,286,744
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Demand bank loan	\$ 174,925	\$ 174,925
Accounts payable	727,656	54,665
Accrued expenses	658,926	575,730
Deferred revenue	-	179,014
Total current liabilities	1,561,507	984,334
Warrant liability	549,308	3,779,522
Total liabilities	2,110,815	4,763,856
Commitments and contingencies (Note 11)	-	-
Shareholders' equity		
Capital stock authorized:		
10,000,000 preferred shares, \$.00001 par value		
300,000,000 common shares, \$.00001 par value		

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Capital stock issued and outstanding:

59,325,132 common shares (56,902,770 at December 31, 2013)	593	569
Capital in excess of par value	56,339,895	47,452,055
Accumulated deficit	(47,210,679)	(39,929,736)
Total shareholders' equity	9,129,809	7,522,888

Total liabilities and shareholders' equity	\$ 11,240,624	\$ 12,286,744
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See accompany notes to consolidated financial statements.

**22nd CENTURY GROUP INC. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF OPERATIONS****Three Months Ended June 30, 2014 and 2013****(unaudited)**

	June 30, 2014	June 30, 2013
Revenue:		
Sale of products	\$ 16,114	\$ -
Cost of goods sold:		
Products	13,176	-
Gross profit	2,938	-
Operating expenses:		
Research and development (including stock based compensation of \$90,400 and \$0, respectively)	263,335	165,087
General and administrative (including stock based compensation of \$541,872 and \$973,253, respectively)	1,344,680	1,400,515
Pre-manufacturing facility costs (including stock based compensation of \$5,093 and \$0, respectively)	274,582	-
Sales and marketing costs	34,160	-
Amortization and depreciation	124,344	56,976
	2,041,101	1,622,578
Operating loss	(2,038,163 )	(1,622,578 )
Other income (expense):		
Warrant liability gain - net	74,117	1,258,502
Interest expense and amortization of debt discount and expense:		
Related parties	-	(5,610 )
Other	(1,769 )	(76,269 )
	72,348	1,176,623
Net loss	\$(1,965,815 )	\$(445,955 )
Loss per common share - basic and diluted	\$(0.03 )	\$(0.01 )
Common shares used in basic earnings per share calculation	58,749,240	39,794,189

See accompany notes to consolidated financial statements.





**22nd CENTURY GROUP INC. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF OPERATIONS****Six Months Ended June 30, 2014 and 2013****(unaudited)**

	June 30, 2014	June 30, 2013
Revenue:		
Sale of products	\$ 463,649	\$ -
Cost of goods sold:		
Products	190,872	-
Gross profit	272,777	-
Operating expenses:		
Research and development (including stock based compensation of \$150,667 and \$111,563, respectively)	485,715	355,835
General and administrative (including stock based compensation of \$838,289 and \$1,825,368, respectively)	2,349,867	2,548,647
Pre-manufacturing facility costs (including stock based compensation of \$5,093 and \$0, respectively)	432,767	-
Sales and marketing costs	34,160	-
Amortization and depreciation	195,613	109,600
	3,498,122	3,014,082
Operating loss	(3,225,345 )	(3,014,082 )
Other income (expense):		
Warrant liability (loss) gain - net	(3,993,153 )	242,327
Warrant amendment inducement expense	(144,548 )	-
Gain on the sale of machinery and equipment	85,621	-
Interest expense and amortization of debt discount and expense:		
Related parties	-	(12,156 )
Other	(3,518 )	(175,247 )
	(4,055,598 )	54,924
Net loss	\$ (7,280,943 )	\$ (2,959,158 )
Loss per common share - basic and diluted	\$ (0.13 )	\$ (0.08 )
Common shares used in basic earnings per share calculation	58,075,029	38,059,566

See accompany notes to consolidated financial statements.

**22nd CENTURY GROUP INC. AND SUBSIDIARIES****CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY****Six Months Ended June 30, 2014****(unaudited)**

	Common Shares Outstanding	Par value of Common Shares	Contributed Capital	Accumulated Deficit	Shareholders' Equity
Balance at December 31, 2013	56,902,770	\$ 569	\$47,452,055	\$(39,929,736)	\$7,522,888
Stock based compensation	1,221,000	12	994,036	-	994,048
Exercise of warrants	1,151,362	12	466,189	-	466,201
Exercise of options	50,000	-	34,500	-	34,500
Other capital contribution	-	-	25,200	-	25,200
Warrant amendments	-	-	7,367,915	-	7,367,915
Net loss	-	-	-	(7,280,943 )	(7,280,943 )
Balance at June 30, 2014	59,325,132	\$ 593	\$56,339,895	\$(47,210,679)	\$9,129,809

See accompanying notes to consolidated financial statements.

**22nd CENTURY GROUP INC. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS****Six Months Ended June 30, 2014 and 2013****(unaudited)**

	June 30, 2014	June 30, 2013
Cash flows from operating activities:		
Net loss	\$ (7,280,943 )	\$ (2,959,158 )
Adjustments to reconcile net loss to cash used in operating activities:		
Amortization and depreciation	195,613	109,600
Amortization of debt issuance costs	-	4,232
Amortization of debt discount	-	110,063
Gain on the sale of machinery and equipment	(85,621 )	-
Interest due to debt conversion	-	17,386
Warrant liability loss (gain)	3,993,153	(242,327 )
Warrant amendment inducement expense	144,548	-
Equity based employee compensation expense	994,049	912,480
Equity based payments for outside services	-	1,024,451
Decrease in assets:		
Accounts receivable	(16,114 )	-
Inventory	(288,841 )	(26,533 )
Prepaid expenses and other assets	(251,095 )	(22,802 )
Increase (decrease) in liabilities:		
Accounts payable	433,339	(312,858 )
Accrued interest payable to related parties	-	6,172
Accrued expenses	108,396	(127,770 )
Deferred revenue	(179,014 )	-
Net cash used in operating activities	(2,232,530 )	(1,507,064 )
Cash flows from investing activities:		
Acquisition of patents and trademarks	(89,352 )	(14,620 )
Acquisition machinery and equipment	(130,184 )	(14,398 )
Proceeds from the sale of machinery and equipment	631,484	-
Equity investment and advance	(342,894 )	-
Net cash provided by (used in) investing activities	69,054	(29,018 )
Cash flows from financing activities:		
Net proceeds from exercise of warrants	466,201	542,229
Net proceeds from exercise of options	34,500	-
Proceeds from issuance of notes	-	150,000
Payments on borrowings - notes payable	-	(395,286 )
Payments on borrowings - convertible notes	-	(339,250 )
Net proceeds from January 2013 preferred stock private placement	-	2,034,664
Other capital contribution	-	1,660
Net payments to related party	(2,500 )	(2,500 )

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Net advances from (to) officers	7,471	(3,893 )
Net cash provided by financing activities	505,672	1,987,624
Net (decrease) increase in cash	(1,657,804 )	451,542
Cash - beginning of period	5,830,599	188
Cash - end of period	\$ 4,172,795	\$ 451,730
Cash paid during the period for interest	\$ 3,537	\$ 32,339
Cash paid during the period for income taxes	\$ -	\$ -

See accompany notes to consolidated financial statements.

**22nd CENTURY GROUP INC. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS (continued)****Six Months Ended June 30, 2014 and 2013****(unaudited)**

	June 30, 2014	June 30, 2013
Reclassification of derivative liability to equity due to warrant amendments	\$ 7,367,915	\$ 204,513
Patent and trademark additions included in accounts payable	\$ 213,800	\$ 85,426
Machinery and equipment included in accounts payable	\$ 25,852	\$ 8,707
Reclassification of machinery and equipment purchases to inventory	\$ 37,856	\$ -
Other capital contribution	\$ 25,200	\$ -
Reduction of accounts payable not related to operating activities:		
Accounts payable converted to promissory notes	\$ -	\$ 769,377
Accrued interest converted to promissory notes	\$ -	\$ 26,422
Notes payable and accrued interest converted to common shares	\$ -	\$ 1,427,705
Preferred stock dividend payable	\$ -	\$ 93,361
Common stock issued for fees relating to January 2013 preferred stock private placement	\$ -	\$ 416,666
Refinance of convertible note to note payable	\$ -	\$ 57,500
Issuance of warrants as derivative liability instruments and reduction of capital	\$ -	\$ 4,174,044

See accompanying notes to consolidated financial statements.

**22nd CENTURY GROUP, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS JUNE 30, 2014**

**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, 2014 are not necessarily indicative of the results that may be expected for the year ending December 31, 2014. The balance sheet at December 31, 2013 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, 2013 audited consolidated financial statements and the notes thereto.

**Nature of Business** - 22nd Century Limited, LLC (“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 129 issued patents in 78 countries plus an additional 44 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. A newly formed wholly-owned subsidiary of 22nd Century Group, Botanical Genetics, LLC (“Botanical Genetics”), was incorporated to facilitate an equity investment more fully described in Note 7.

**Principles of Consolidation** - The accompanying consolidated financial statements include the accounts of 22nd Century Group, its wholly-owned subsidiaries, Botanical Genetics and 22nd Century Ltd, and 22nd Century Ltd’s wholly owned subsidiaries, Goodrich Tobacco and Hercules Pharmaceuticals. All intercompany accounts and transactions have been eliminated.

**Reclassifications** - Certain items in the 2013 financial statements have been reclassified to conform to the 2014 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 were converted into an aggregate of 4,166,666 shares of common stock of the Company 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, 2014 and December 31, 2013, the Company’s inventory consisted primarily of raw materials and cigarette component parts, mainly tobacco.

**Fixed assets** - Fixed assets are recorded at their acquisition cost and depreciated on a straight line basis over their estimated useful lives ranging from 5 to 10 years. Depreciation commences when the asset is placed in service. Cigarette manufacturing equipment purchased in December 2013 and during the six months ended June 30, 2014 in the amount of \$2,991,644 was placed in service during the second quarter of 2014.

**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, as well as costs to acquire patent rights from third parties. The amounts capitalized relate to intellectual property that the Company owns or to which it has exclusive rights. The Company’s intellectual property capitalized costs are amortized using the straight-line method over the remaining statutory life of the primary patent in each of the Company’s two primary patent families, which expires in 2019 and 2028 (the assets’ estimated lives). Periodic maintenance or renewal fees are expensed as incurred. Annual minimum license fees are charged to expense. Total patent and trademark costs capitalized at June 30, 2014 and December 31, 2013 consist of the following:



	June 30, 2014	December 31, 2013
Patent and trademark costs	\$2,862,564	\$2,559,412
Less: accumulated amortization	1,134,621	1,014,543
Patent and trademark costs, net	\$1,727,943	\$1,544,869

During the year ended December 31, 2013, the Company changed the estimated useful life of one of the patent families. The change did not have a material impact on the financial statements.

The estimated annual average amortization expense for the next five years is approximately \$204,000.

**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, 2014 or 2013.

**Income Taxes** - The Company recognizes 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 net operating losses and the uncertainty of their future utilization, the Company has established a valuation allowance to fully offset its net deferred tax assets as of June 30, 2014 and December 31, 2013.

The Company's federal and state tax returns for the years ended September 30, 2011 to December 31, 2012 are currently open to audit under the statutes of limitations. There are no pending audits as of June 30, 2014.

**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.

**Revenue Recognition** - The Company recognizes revenue from product sales 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. Cigarette federal excise taxes are included in net sales and accounts receivable billed to customers, except on sales of *SPECTRUM* research cigarettes 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 Company's mark, *SPECTRUM*. In September 2013, the Company received a purchase order for 5.5 million *SPECTRUM* research cigarettes that were shipped in January 2014. Total revenue from this order was approximately \$448,000. A down payment of \$179,014 was received in the fourth quarter of 2013 and was recorded as deferred revenue on the Company's balance sheet at December 31, 2013. There were no *SPECTRUM* cigarettes delivered during the year ended December 31, 2013.

The Company licenses its patented technology to third parties. Revenue is recognized from licensing arrangements as contractually defined in licensing agreements. The Company accounts for milestones elements contained in licensing agreements in accordance with ASC 605. On October 1, 2013, 22nd Century Ltd entered into a worldwide Research License and Commercial Option Agreement (the "Agreement") with British American Tobacco (Investments) Limited ("BAT"), a subsidiary of British American Tobacco plc, that grants BAT access to 22nd Century Ltd's patented technology which alters levels of nicotinic alkaloids in tobacco plants. Simultaneous with the signing of the Agreement, BAT paid the Company a non-refundable \$7,000,000. The Company will be entitled to receive additional payments from BAT of up to an additional \$7,000,000 during the term of the Research License in the event certain milestones are met with respect to the ongoing research and development of the Company's licensed technology to BAT. No amount related to the additional research milestones was recognized during the six months ended June 30, 2014. During the term of the Research License, BAT will have the option to enter into a Commercial License agreement which will provide for future annual payments, royalty payments and minimum annual royalties. A portion of the patented technology sublicensed to BAT is exclusively licensed to 22nd Century Ltd by a third party licensor. Pursuant to the terms of the license agreement with such licensor, 22nd Century Ltd is obligated to make a royalty payment to the licensor. 22nd Century Ltd estimates the payment to be approximately \$414,000, subject to the mutual agreement of 22nd Century Ltd and the third party licensor.

**Derivatives** - The Company does not use derivative instruments to hedge exposures to cash flow, market or foreign currency risks. The Company evaluates all of its 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 generally accepted 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 U.S., 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, demand bank loan and warrant liability. Other than warrant liability, fair value is assumed to approximate carrying values for these financial instruments, and since they are short term in nature, they are receivable or payable on demand, or have stated interest rates that approximate the interest rates available to the Company as of the reporting date. The determination of the fair value of the warrant liability includes unobservable inputs and is therefore categorized as a Level 3 measurement, as further discussed in Note 10.

**Recent Accounting Pronouncements** - In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers", which supersedes nearly all existing revenue recognition guidance under U.S. GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration to which an entity expects to be entitled for those goods or services. ASU 2014-09 defines a five step process to achieve this core principle and, in doing so, more judgment and estimates may be required within the revenue recognition process than are required under existing U.S. GAAP. The standard is effective for annual periods beginning after December 15, 2016, and interim periods therein, using either of the following transition methods: (i) a full retrospective approach reflecting the application of the standard in each prior reporting period with the option to elect certain practical expedients, or (ii) a retrospective approach with the cumulative effect of initially adopting ASU 2014-09 recognized at the date of adoption (which includes additional footnote disclosures). We are currently evaluating the impact of our pending adoption of ASU 2014-09 on our consolidated financial statements and have not yet determined the method by which we will adopt the standard in 2017.

## **NOTE 2. - NYSE MKT EXCHANGE**

On March 11, 2014, the Company's common stock began trading on the NYSE MKT exchange under the ticker symbol XXII. The Company's common stock had been previously quoted on the OTC Bulletin Board under the same ticker symbol.

**NOTE 3. - FINANCIAL CONDITION**

At June 30, 2014, the Company had current assets of \$6,217,550 and current liabilities of \$1,561,507 resulting in positive working capital of \$4,656,043. Cash on hand at June 30, 2014 was \$4,172,795. The Company believes it will have adequate cash reserves to sustain operations and meet all current obligations as they come due for a period of approximately 8 months.

The Company's Form S-3 universal shelf registration statement was filed with the U.S. Securities and Exchange Commission ("SEC") on April 18, 2014, and became effective on June 5, 2014. The universal shelf registration statement will allow, but not compel, the Company to raise up to \$45 million of capital over a three-year period through a wide array of securities at times and in amounts to be determined by the Company.

**NOTE 4. - 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. During 2013, all Series A-1 Preferred Stock was converted into shares of the Company's common stock and all related warrants to purchase shares of the Company's common stock were exercised. Net proceeds from the exercise of warrants to purchase shares of the Company's common stock were \$2.090 million.

**NOTE 5. - MANUFACTURING FACILITY**

The Company's warehouse and cigarette manufacturing facility located in North Carolina was primarily in a pre-manufacturing stage during the six months ended June 30, 2014. During this time period the Company incurred various expenses to prepare the facility for production. Expenses incurred during the six months ended June 30, 2014 amounted to \$432,767 and consisted primarily of expenses for salaries and benefits for employees, sub-contract labor, rent, utilities and other miscellaneous costs and are reported as pre-manufacturing facility costs on the Company's Consolidated Statements of Operations. During the second quarter of 2014 the Company placed \$2,997,140 of cigarette manufacturing equipment in service. Depreciation taken on the equipment during the second quarter of 2014 amounted to \$73,695 and is included on amortization and depreciation on the Company's Consolidated Statements of Operations. The Company did manufacture a quantity of filtered cigars during June of 2014 resulting in revenue of \$16,114. The Company will commence manufacturing its proprietary cigarette brands at its manufacturing facility once the Membership Interest Purchase Agreement closes and the Company becomes a participating member of the MSA as more fully discussed in Note 11. Until such time, the Company will continue to manufacture types of tobacco products not covered by the MSA, such as filtered cigars.

**NOTE 6. - MACHINERY AND EQUIPMENT**

Machinery and equipment at June 30, 2014 and December 31, 2013 consists of the following:

	June 30, 2014	December 31, 2013
Cigarette manufacturing equipment	\$2,997,140	\$3,220,000
Office furniture, fixtures and equipment	22,236	17,059
Leasehold improvements	14,500	14,500
Deposit for purchase of machine parts and other assets	-	210,000
	3,033,876	3,461,559
Less: cigarette manufacturing equipment held for resale	-	457,696
	3,033,876	3,003,863
Less: accumulated depreciation	81,639	6,103
Machinery and equipment, net	\$2,952,237	\$2,997,760

On December 11, 2013, the Company closed on a \$3,220,000 purchase of certain cigarette manufacturing equipment from the bankruptcy estate of a company located in North Carolina that was liquidating under Chapter 7 of the U.S. Bankruptcy Code. Additionally, on January 13, 2014, the Company closed on a \$210,000 purchase of various cigarette manufacturing equipment parts, office furniture and fixtures, vehicles and computer software and equipment from a second bankruptcy estate of a company located in North Carolina that was liquidating under Chapter 7 of the U.S. Bankruptcy Code. A portion of the equipment from these two transactions was not required for the Company's manufacturing operations and was subsequently sold at auction during the first quarter of 2014. The Company allocated \$457,696 and \$88,167 of the purchase price to these assets from the two transactions, respectively. The Company realized net proceeds from the auction sale of \$631,484, resulting in a gain on the sale of assets of \$85,621. The remaining cigarette manufacturing equipment was placed in service during the second quarter of 2014.

#### **NOTE 7. - EQUITY INVESTMENT AND ADVANCE**

On April 11, 2014, the Company, through a newly formed wholly-owned subsidiary, Botanical Genetics, LLC, entered into an agreement (the "Agreement") with a certain plant biotechnology company (the "Investee"). The Agreement calls for the Company to make an initial investment of \$250,000 in return for (i) a ten percent (10%) equity interest in the Investee, and (ii) certain rights granted to the Company for four patent families (the "Intellectual Property"). The \$250,000 investment was made on April 14, 2014. Upon certain milestones to be achieved by the Investee, which are expected prior to September 30, 2014, the Company will make an additional investment in the Investee in the amount of \$450,000 in return for (i) an additional fifteen percent (15%) equity interest in the Investee, and (ii) a worldwide license agreement to the Intellectual Property, including an exclusive license agreement within the U.S. In addition, upon the achievement of the milestones, the Company will grant 150,000 shares of the Company's common stock to the Investee. On the one year anniversary of the milestone achievement, the Company will grant shares of the Company's common stock with an aggregate market value of \$325,000 at the time of the grant. In January 2014, the Company made a non-interest bearing advance to the Investee in the amount of \$92,894 that will be applied to the payment of patent costs relating to the Intellectual Property to be included in the license agreement. The Company does not control nor exert significant influence over the Investee and therefore carries the investment at cost.

#### **NOTE 8. - 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, 2014 and December 31, 2013. 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, 2014 and December 31, 2013. 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 of the Company's assets.

#### **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 six months ended June 30, 2014 and the year ended December 31, 2013, transactions with AC consisted mainly of advances and repayments. The net amount due from AC amounted to \$44,569 and \$42,069 as of June 30, 2014 and December 31, 2013, respectively. No interest has been accrued or paid on amount due from or to AC and there are no repayment terms.

**NOTE 10. - WARRANT EXCHANGE PROGRAM AND WARRANTS FOR COMMON STOCK**

During the fourth quarter of 2013, the Company initiated a warrant exchange program (the “Warrant Exchange Program”) with existing warrant holders. As a result of the Warrant Exchange Program, the Company had 10,653,469 outstanding warrants remaining at December 31, 2013, a reduction from 19,616,308, as of September 30, 2013. Of the remaining outstanding warrants at December 31, 2013, 3,921,381 warrants contained anti-dilution features that provide for adjustments to the exercise price and number of warrants outstanding if the Company issues common shares of stock of 22nd Century Group at a price that is less than the respective warrant exercise prices. These provisions require that these warrants be classified as derivatives for accounting purposes, which means they are reported as a liability and adjusted to fair value at each balance sheet date.

In March 2014, the Company entered into warrant amendments with existing warrant holders (the “Warrant Amendments”) with the goal of further reducing the Company’s warrant liability. To that end, the Company offered financial inducements to certain non-management warrant holders to (i) exercise their warrant on a cash basis, (ii) exercise their warrant on a cashless basis, or (iii) agree to have the anti-dilution feature removed from their warrant in exchange for a reduction in the exercise price contained in their respective warrants. The warrants holders also had the option to maintain the terms and conditions of their original warrant. Management elected to have the anti-dilution feature removed from their warrants without inducement. As a result of the Warrant Amendments and subsequent warrant exercises during the six months ended June 30, 2014, there are 9,310,975 warrants outstanding at June 30, 2014 that do not contain the anti-dilution features. A total of 129,809 warrants containing anti-dilution features remain outstanding at June 30, 2014. The Company calculated the cost of inducement as the difference between the fair value of the warrants immediately after the Warrant Amendments closed, less the fair value of the warrants immediately prior to the completion of the Warrant Amendments. The Company estimated the total cost of inducement to be \$144,548. This expense has been recorded as an “Other Expense” on the Consolidated Statements of Operations, and as an increase to the derivative warrant liability that was subsequently reversed into capital. Outstanding warrants at June 30, 2014 consist of the following:



Warrant Description	Number of Warrants	Exercise Price	Expiration
January 2011 PPO \$3.00 warrants	2,817,952	\$2.2029	January 25, 2016
January 2011 PPO \$3.00 warrants	653,869	\$2.0000	January 25, 2016
January 2011 PPO \$3.00 warrants	3,062,665	\$1.9600	January 25, 2016
January 2011 PPO \$1.50 warrants	309,340	\$1.2672	January 25, 2016
January 2011 PPO \$1.50 warrants <sup>(1)</sup>	37,177	\$1.2018	January 25, 2016
January 2011 PPO \$1.50 warrants	62,329	\$1.2018	January 25, 2016
January 2011 PPO \$1.50 warrants	10,831	\$1.1718	January 25, 2016
December 2011 convertible NP warrants	172,730	\$1.1984	February 8, 2017
December 2011 convertible NP warrants	802,215	\$1.3816	February 6, 2018
May 2012 PPO warrants	401,700	\$0.6000	May 15, 2017
November 2012 PPO warrants	925,100	\$0.6000	November 9, 2017
August 2012 convertible NP warrants <sup>(1)</sup>	92,632	\$0.9520	August 8, 2018
August 2012 convertible NP warrants	92,244	\$0.9060	August 8, 2018
Total warrants outstanding <sup>(2)</sup>	\$9,440,784		

(1) Includes anti-dilution features.

(2) Includes 3,725,962 warrants (39.5%) held by officers and directors that have had the anti-dilution feature removed without inducement.

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 summary of the warrant liability:

Fair value at December 31, 2012	\$4,173,140
Fair value of warrant liability upon conversion of remaining December 14, 2011 Notes -- Q1 2013	1,445,091
Fair value of warrant liability upon issuance -- Q1 2013	6,022,319
Fair value of warrant liability upon issuance -- Q2 2013	711, 675
Fair value of warrant liability upon issuance -- Q3 2013	1,622,069
Fair value of warrant liability upon conversion of August 9, 2012 Notes -- Q3 2013	731,662
Fair value of warrant liability upon reduction of exercise price of Series A and Series C warrants -- Q3 2013	626,328
Reclassification of warrant liability to equity upon exercise of warrants -- Q2 2013	(204,513 )
Reclassification of warrant liability to equity upon exercise of warrants -- Q3 2013	(6,542,904 )
Reclassification of warrant liability to equity upon exercise of warrants -- Q4 2013	(7,712,170 )
Cost of inducement from Warrant Exchange Program -- Q4 2013	3,274,313

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Reclassification of warrant liability to equity resulting from Warrant Exchange Program – Q4 2013	(19,639,465)
Loss as a result of change in fair value	19,271,977
Fair value at December 31, 2013	\$3,779,522
Reclassification of warrant liability to equity resulting from Warrant Amendments – Q1 2014	(7,367,915 )
Cost of inducement from Warrant Amendments – Q1 2014	144,548
Loss as a result of change in fair value	3,993,153
Fair value at June 30, 2014	\$549,308

The aggregate net gain (loss) as a result of the Company’s warrant liability for the three and six months ended June 30, 2014 amounted to \$74,117 and (\$3,993,153), respectively, which is included in Other income (expense) as part of “Warrant liability (loss) gain - net” in the accompanying Consolidated Statements of Operations.

The aggregate net gain as a result of the Company's warrant liability for the three and six months ended June, 30, 2013 amounted to \$1,258,502 and \$4,229,982, respectively. 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, leaving a net warrant liability gain of \$242,327 for the six months ended June 30, 2013.

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; and
- 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's or a financial 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 Company's warrant activity since December 31, 2012:

	Number of Warrants
Warrants outstanding at December 31, 2012	12,972,664
Warrants issued	11,570,274
Warrants issued as part of Warrant Exchange Program	138,666
Additional warrants due to anti-dilution provisions	1,665,400
Warrants exercised during 2013	(9,831,414 )
Warrants exercised as part of Warrant Exchange Program	(5,862,121 )
Warrants outstanding at December 31, 2013	10,653,469
Warrants exercised during Q1 and Q2 2014	(1,231,068 )
Additional warrants due to anti-dilution provisions	18,383
Warrants outstanding at June 30, 2014	9,440,784

Composition of outstanding warrants:

Warrants containing anti-dilution feature	129,809
Warrants with anti-dilution feature removed	9,310,975
	9,440,784

**NOTE 11. - COMMITMENTS AND CONTINGENCIES**

**License Agreements** - Under its exclusive worldwide license agreement with North Carolina State University (“NCSU”), the Company is required to pay minimum annual royalty payments, which are credited against running royalties on sales of licensed products. The minimum annual royalty for 2014 and 2015 is \$75,000, and in 2016 the minimum annual royalty increases to \$225,000. The license agreement continues through the life of the last-to-expire patent, which is expected to be 2022. The license agreement also requires a milestone payment of \$150,000 upon FDA approval or clearance of a product that uses the NCSU licensed technology. The Company is also 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 and six months ended June 30, 2014, the costs incurred related to capitalized patent costs and patent maintenance expense amounted to \$17,262 and \$39,442, respectively (\$9,150 and \$23,827 during the three and six months ended June 30, 2013, respectively).

In addition, on February 10, 2014, the Company entered into a sponsored research and development agreement (the “Agreement”) with North Carolina State University (“NCSU”). Under the terms of the Agreement, the Company is required to pay NCSU \$162,408 over the two-year term of the Agreement, which grants certain licensing rights to the Company. A payment of \$81,204 was made in February 2014 and a final payment of \$81,204 is due and payable on February 1, 2015.

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.

All payments made under the license agreements are initially recorded as a prepaid expense on the Company's Consolidated Balance Sheets and subsequently written off on a straight-line basis over the applicable period and included in Research and development costs on the Company's Consolidated Statements of Operations.

***Membership Interest Purchase Agreement*** - On September 17, 2013, the Company entered into a Membership Interest Purchase Agreement to purchase all of the issued and outstanding membership interests of NASCO Products, LLC, ("NASCO"), a North Carolina limited liability company (the "Transaction"). NASCO is a federally licensed tobacco product manufacturer and a participating member of the Tobacco Master Settlement Agreement known as the MSA, an agreement among 46 U.S. states and the tobacco industry administered by the National Association of Attorneys General ("NAAG").

The initial purchase price for the Transaction is One Million Dollars (\$1,000,000) (the "Purchase Price"), subject to potential closing date adjustments for any unpaid liabilities of NASCO. The Purchase Price will be paid as follows: (i) a cash payment of Two Hundred Thousand (\$200,000) and (ii) the issuance of Eight Hundred Thousand Dollars (\$800,000) in value of unregistered shares of common stock of the Company based on the average of the five (5) day closing price of the Company's common shares on the NYSE MKT for the five (5) trading days immediately preceding the closing date. In no event shall the number of common shares issued by the Company be less than 640,000 or greater than 1,066,667.

The Membership Purchase Agreement contains customary representations, warranties, covenants and indemnities. Consummation of the NASCO Transaction is subject to various conditions, including required consents from NAAG and certain attorneys general of the settling states of the MSA, and other customary closing conditions. The NASCO Transaction will close upon the settling states of the MSA consenting to the transaction and a modified Adherence Agreement for NASCO. Upon the closing of the NASCO Acquisition, NASCO will become a wholly-owned subsidiary of 22nd Century Group and the national distribution of 22nd Century's super-premium priced cigarettes will commence. The Membership Purchase Agreement contains termination rights, including a right for the Company to terminate the Purchase Agreement, solely up to the Company's discretion, if the closing shall not have occurred on or before January 31, 2014. The Company did not exercise their termination rights. The Purchase Agreement also contemplated that the Company would enter into a management agreement and sales representation agreement at closing with an affiliate of NASCO.

On May 13, 2014, the Company and NASCO executed the First Amendment to the Membership Purchase Agreement (the "Amendment"). The Amendment increased the Purchase Price of the Transaction to One Million Fifty Thousand Dollars (\$1,050,000) and increased the cash payment to Two Hundred Fifty Thousand Dollars (\$250,000). In addition, the amendment eliminated the Company's closing requirement to enter into a management agreement and a sales representation agreement with an affiliate of NASCO.

**Lease Agreements** - On October 9, 2013, the Company executed a guaranty that guarantees performance by NASCO of its obligations to a landlord under a certain triple net lease of the same date between NASCO and a landlord for a manufacturing facility and warehouse located in North Carolina. Upon the Transaction closing, the lease will be a direct obligation of the Company. The lease commenced on January 14, 2014, and has an initial term of twelve (12) months (the "Initial Term"). The lease contains four (4) additional extensions; one for an additional one (1) year and three for an additional two (2) years in duration, exercisable at the option of NASCO. The lease also contains an early termination clause that provides NASCO with the right to terminate the lease at any time during the first nine (9) month of the Initial Term by giving ninety (90) days prior written notice to the landlord. The lease calls for minimum lease payments of \$96,000, \$123,000, \$298,275, \$338,250 and \$338,250 during the Initial Term, the one (1) year optional extension, and each of the three (3), two (2) year optional extensions, respectively. These commitments are not included in the schedule below.

The Company entered into a three year lease for office space in Clarence, New York, which commenced September 1, 2011. The Company expects to renew the lease with terms substantially equivalent to the expiring terms. On January 25, 2013, the Company entered into a two and one-half year lease for manufacturing space in Depew, New York, which commenced February 1, 2013. Scheduled rent commitments for the leases in Clarence and Depew remaining as of June 30, 2014 are approximately as follows:

2014 \$16,000  
2015 \$10,000

## NOTE 12. - 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, 2014 and 2013:

	June 30, 2014	June 30, 2013
Net loss attributed to common shareholders	\$(1,965,815 )	\$(445,955 )
Denominator for basic earnings per share-weighted average shares outstanding	58,749,240	39,794,189
Effect of dilutive securities:		
Warrants, restricted stock and options outstanding	-	-
Denominator for diluted earnings per common share-weighted average shares adjusted for dilutive securities	58,749,240	39,794,189
Loss per common share – basic and diluted	\$(0.03 )	\$(0.01 )

The following table sets forth the computation of basic and diluted earnings per common share for the six month period ended June 30, 2014 and 2013:

	June 30, 2014	June 30, 2013
Net loss attributed to common shareholders	\$(7,280,943 )	\$(2,959,158 )
Denominator for basic earnings per share-weighted average shares outstanding	58,075,029	38,059,566
Effect of dilutive securities:		
Warrants, restricted stock and options outstanding	-	-
Denominator for diluted earnings per common share-weighted average shares adjusted for dilutive securities	58,075,029	38,059,566

Loss per common share – basic and diluted \$(0.13 ) \$(0.08 )

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

	June 30, 2014	June 30, 2013
Warrants	9,440,784	24,097,860
Convertible debt	-	742,000
Restricted stock	250,000	500,000
Options	910,000	680,000
	10,600,784	26,019,860



**NOTE 13. - 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 30, 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.

During the first quarter of 2014, the Company issued restricted stock awards from the EIP for 850,000 restricted shares to employees and directors that will vest on January 27, 2015. All awards were valued at the closing price on the measurement date of the award. Subsequent to this issuance of restricted stock, there are no shares remaining to be issued from the EIP.

On April 12, 2014, the stockholders of the Company approved the 22nd Century Group, Inc. 2014 Omnibus Incentive Plan (the “OIP”). The OIP allows for the granting of equity and cash incentive awards to eligible individuals over the life of the OIP, including the issuance of up to 5,000,000 shares of the Company’s common stock pursuant to awards under the OIP. The OIP has a term of ten years and is administered by the Compensation Committee of our Board of Directors 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 OIP. On April 18, 2014, the Company filed a Form S-8 registration statement with the SEC to register the 5,000,000 shares of common stock of 22nd Century Group that may be issued under the OIP.

During the second quarter of 2014, the Company issued restricted stock awards from the OIP for 121,000 restricted shares to employees having vesting periods ranging from one to three years from the award date. All awards were valued at the closing price on the measurement date of the award.

For three and six months ended June 30, 2014, the Company recorded compensation expense related to restricted stock and stock option awards granted under the EIP and OIP of \$637,365 and \$994,049, respectively, (\$38,853 and \$912,480 for the three and six months ended June 30, 2013, respectively). The Company also recorded equity based compensation for the three and six months ended June 30, 2013 as payment to third parties for services rendered in the amount of \$934,400 and \$1,024,451, respectively. The Company had no equity based compensation for third party services during the three and six months ended June 30, 2014.

As of June 30, 2014, unrecognized compensation expense related to non-vested restricted shares and stock options amounted to approximately \$1,949,000 which is expected to be recognized approximately as follows: \$1,231,000,

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\$518,000, \$160,000 and \$40,000 during 2014, 2015, 2016 and 2017, respectively.

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, 2014 and 2013:

	2014	2013		
Risk-free interest rate	1.80	% 1.89	%	
Expected dividend yield	0	% 0	%	
Expected stock price volatility	90	% 90	%	
Expected life of options	10 years	10 years		

The Company estimated the expected volatility based on data used by a peer group of public companies. The expected term was estimated using the contract life of the option. The risk-free interest rate assumption was determined using yield of the equivalent U.S. Treasury bonds over the expected term. The Company has never paid any cash dividends and does not anticipate paying any cash dividends in the foreseeable future. Therefore, the Company assumed an expected dividend yield of zero.

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		
Exercised in 2013	(20,000 )	\$ 0.26		
Outstanding at December 31, 2013	660,000	\$ 0.74		
Granted in 2014	300,000	\$ 2.61		
Exercised in 2014	(50,000 )	\$ 0.69		
Outstanding at June 30, 2014	910,000	\$ 1.36	8.7 years	\$ 1,555,400
Exercisable at June 30, 2014	660,000	\$ 0.89	8.2 years	\$ 1,441,150

There were 300,000 options granted from the OIP during the six months ended June 30, 2014 (215,000 options granted during the six months ended June 30, 2013). The weighted average grant date fair value of options issued during the six months ended June 30, 2014 was \$2.07 (\$0.68 for the six months ended June 30, 2013). The total fair value of option that vested during the six months ended June 30, 2014 amounted to \$103,250 (\$186,595 for the six months ended June 30, 2013). During the six months ended June 30, 2014, 50,000 options were exercised for cash proceeds of \$34,500. No options were exercised during the six months ended June 30, 2013.

## **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 continue,” “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 continue to monetize the licensing of our technology and products; our ability to raise capital, if required, 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, 2013, which is available on the SEC’s website at [www.sec.gov](http://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 129 issued patents and an additional 44 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. A newly formed wholly-owned subsidiary of 22nd Century Group, Botanical Genetics, LLC (“Botanical Genetics”), was incorporated to facilitate an equity investment that closed on April 14, 2014.

The Company is primarily involved in the following activities:

- The international licensing of our technology, proprietary tobaccos, and trademarks;

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

- The production of *SPECTRUM* research cigarettes for the National Institute on Drug Abuse (“NIDA”), a department of the National Institutes of Health (“NIH”);

- The research and development of potentially less harmful or modified risk tobacco products and novel tobacco plant varieties;

- The development of *X-22*, a prescription-based smoking cessation aid consisting of very low nicotine cigarettes; and

- The pursuit of necessary regulatory approvals and clearances from the FDA to market in the U.S. *BRAND A* and *BRAND B* as modified risk cigarettes and *X-22* as a prescription smoking cessation aid.

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, including *RED SUN*, *MOONLIGHT* 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.

Our long-term focus is licensing, manufacturing, and worldwide sales and distribution of our products to reduce the harm caused by smoking. Annual worldwide tobacco product sales, cigarettes and smokeless products, are approximately \$700 billion, 90 percent of which are cigarette sales, according to Euromonitor International. Worldwide smoking prevalence has decreased in recent years, but the number of cigarette smokers worldwide has increased to approximately 1 billion due to population growth, according to a 2013 research report from the Institute for Health Metrics and Evaluation (IHME) at the University of Washington.

We believe that the tobacco industry is at the beginning of a paradigm shift towards the development and commercialization of reduced-risk tobacco products which represent a significant step toward achieving the public health objective of harm reduction. The Company's 15 years of research and development on the tobacco plant, mainly on the nicotine biosynthetic pathway, uniquely positions us to become a major benefactor of this paradigm shift developing in the tobacco industry. Our technology has created, and will continue to develop, a pipeline of products.

*Licensing our technology and tobacco*

We have been in negotiations with various parties in the tobacco and pharmaceutical industries for licensing our technology and products. On October 1, 2013, 22nd Century Ltd entered into a Research License and Commercial Option Agreement (the "BAT Research Agreement") with British American Tobacco (Investments) Limited ("BAT"), a subsidiary of British American Tobacco plc.

Under the terms of the BAT Research Agreement, BAT receives an exclusive worldwide license to certain patent rights (subject to worldwide rights retained by 22nd Century Ltd for use in its own products and brands) and licensed intellectual property rights of 22nd Century Ltd within the field of use (as such terms are defined in the BAT Research Agreement) for a period of up to four (4) years (the "Research Term"). During the Research Term, BAT also has an option, which can be exercised by BAT at any time during the Research Term, to obtain an exclusive worldwide license (subject to worldwide rights retained by 22nd Century Ltd for use in its own products and brands) to commercialize certain products derived from utilizing the patent rights and licensed intellectual property rights under the terms of a commercial license agreement (the "Commercial License"). BAT and the Company also agreed to collaborate with each other as each party engages in its own independent research during the Research Term.

Simultaneous with the signing of the BAT Research Agreement, BAT paid 22nd Century Ltd a non-refundable fee of \$7.0 million. Further, 22nd Century Ltd may receive payments from BAT of up to an additional \$7.0 million during the Research Term in the event certain milestones are met by BAT with respect to its research and development of the patent rights and licensed intellectual property rights licensed by 22nd Century Ltd to BAT. There are four separate milestones, two of which BAT would pay 22nd Century Ltd \$2.0 million for each milestone achieved, and two of which BAT would pay 22nd Century Ltd \$1.5 million for each milestone achieved. BAT may terminate the BAT Research Agreement at any time, subject to the requirements for certain payments to 22nd Century Ltd by BAT upon termination as set forth therein. 22nd Century Ltd may also terminate the BAT Research Agreement in the event of certain uncured breaches of the BAT Research Agreement as set forth therein.

BAT also granted to 22nd Century Ltd a worldwide license to any and all registered research results (as such term is defined in the BAT Research Agreement) developed and owned by BAT which results or arises from any research, development or other activities of BAT under the BAT Research Agreement, with the terms of such license from BAT to 22nd Century Ltd (i) to be on commercially reasonable terms to be negotiated in good faith between the parties, but in any event on terms which are no more onerous than the terms of the Commercial License, if any, and (ii) to be dependent on what, if any, research results the Company elects to license.

If BAT exercises the option for a worldwide Commercial License, BAT is required to pay 22nd Century Ltd \$3.0 million in aggregate annual license fees over a 2-year ramp-up period, and thereafter, a royalty of (i) \$100 per metric ton of licensed tobacco that is supplied to, or grown and ready for shipment to, BAT and its affiliates (other than Reynolds American, Inc. and Reynolds' affiliates) and all other third parties; and (ii) \$200 per metric ton of licensed tobacco supplied to, or grown and processed by, BAT's affiliate Reynolds American, Inc.

The minimum and maximum amount of annual royalties under the terms of the Commercial License, which commence after the two-year ramp-up period from the exercise of the option, are \$3.0 million and \$15.0 million, respectively for a period of three years. Thereafter, the minimum and maximum annual royalties increase to \$5.0 million and \$25 million, respectively, until September 28, 2028. Thereafter, no further minimum royalties are due and the maximum annual royalties due remain at \$25 million until expiration of the Commercial License.

Beginning three years from the start of the Commercial License, both 22nd Century Ltd and BAT may license/sublicense rights to any unaffiliated third party for use of the technology outside the United States and 22nd Century Ltd and BAT will equally share all profit from all such licensees/sublicenses. Inside the United States, BAT may only sublicense BAT's commercial rights to Reynolds American Inc. 22nd Century Ltd may sublicense any party in the United States. In 2012, global production of tobacco leaf was approximately 5,700,000 metric tons, of which BAT utilized approximately 10% for BAT's and its affiliates' brands. British American Tobacco sells product in approximately 180 countries.

#### *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 since we intentionally have not expanded marketing and distribution of these brands to facilitate the Company 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.

*Manufacturing*

In December 2013, Goodrich Tobacco purchased certain (i) cigarette manufacturing equipment, and (ii) equipment parts, factory items, office furniture and fixtures, vehicles and computers from the bankruptcy estate of PTM Technologies, Inc. (“PTM”) for \$3.22 million. In January 2014, Goodrich Tobacco purchased additional miscellaneous equipment, factory items, office furniture and fixtures, vehicles and computers from the bankruptcy estate of Renegade Tobacco Co. (“Renegade”) for \$210,000. PTM and Renegade are related companies located in North Carolina undergoing Chapter 7 liquidation proceedings in the United States Bankruptcy Court for the Middle District of North Carolina. Goodrich Tobacco subsequently received \$631,484 in net proceeds from auctioning off certain cigarette manufacturing equipment and other items not required for operations at the Company’s factory in Mocksville, North Carolina.

The warehouse and cigarette manufacturing facility has primarily been in a pre-manufacturing stage during the six months ended June 30, 2014. During this time period we incurred various expenses to prepare the facility for production. Expenses incurred during the six months ended June 30, 2014 amounted to \$432,767 and consisted primarily of expenses for salaries and benefits for employees, sub-contract labor, rent, utilities and other miscellaneous costs. We did manufacture a quantity of filtered cigars during June 2014 resulting in revenue of \$16,114. The Company will commence manufacturing of its proprietary cigarette brands at its manufacturing facility once the Membership Interest Purchase Agreement closes and the Company becomes a participating member of the MSA as more fully discussed in the MSA membership discussion. Until such time, the Company will continue to manufacture types of tobacco products not covered by the MSA such as filtered cigars.



### *MSA Membership*

The Company is following two parallel tracks for becoming a member of the MSA. First, 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. On February 26, 2013, Goodrich Tobacco applied to the NAAG to become a participating manufacturer to the MSA. Goodrich Tobacco was granted a federal permit to produce tobacco products by the Alcohol and Tobacco Tax and Trade Bureau of the U.S. Department of the Treasury (“TTB Permit”) on March 6, 2014.

Second, in September 2013, the Company entered into a Membership Interest Purchase Agreement (the “Purchase Agreement”) to purchase all of the issued and outstanding membership interests of NASCO Products, LLC, (“NASCO”) a federally licensed tobacco product manufacturer and participating member of the MSA (the “NASCO Acquisition”). The initial purchase price for the transaction is \$1,000,000 (the “Purchase Price”), subject to potential closing date adjustments for any unpaid liabilities of NASCO. The Purchase Price will be paid as follows: (i) a cash payment of \$200,000 and (ii) the issuance of \$800,000 in value of unregistered shares of common stock of the Company. The Purchase Agreement is subject to various conditions, including required consents and authorizations from NAAG and certain attorneys general.

On May 13, 2014, the Company and NASCO executed the First Amendment to the Membership Purchase Agreement (the “Amendment”). The Amendment increased the Purchase Price of the Transaction to \$1,050,000 and increased the cash payment to \$250,000. In addition, the amendment eliminated the Company’s closing requirement to enter into a management agreement and sales representation agreement with an affiliate of NASCO.

The Company continues to cooperate fully with the NAAG. The NASCO Acquisition will close if the settling states of the MSA consent to the transaction and a modified Adherence Agreement for NASCO. The Company believes that NASCO’s modified Adherence Agreement, as negotiated among NAAG, NASCO and 22nd Century Group, is close to being finalized. Upon the closing of the NASCO Acquisition, NASCO will become a wholly-owned subsidiary of 22nd Century Group and the national distribution of 22nd Century’s super-premium priced cigarettes will commence. The modified Adherence Agreement was forwarded to the offices of the Attorneys General of the settling states of the MSA for their signature in late July 2014.

### *International Sales*

Goodrich Tobacco signed a letter of intent with Orion, a cigarette manufacturer in Poland, to contract manufacture the Company’s proprietary tobacco products for distribution in the European Union. The parties are now finalizing a

manufacturing agreement. Distribution of MAGIC Zero<sup>®</sup> is expected in Spain in the fall of 2014. Orion is a manufacturer and distributor of smoking tobaccos, cigarettes, filter tubes, and smoking accessories with distribution in more than 20 countries. The Company continues to work with its European partner on preparations to launch the Company's products in The Netherlands, Belgium and Luxemburg, which is also expected in the fall 2014. 22nd Century Group is also evaluating the sale and distribution of its products in other European countries and in Asia, including China.

*SPECTRUM Government Research Cigarettes and FDA VLN Tobacco Order*

We were 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 Company's mark, *SPECTRUM*. In September 2013, the Company received a purchase order for 5.5 million *SPECTRUM* research cigarettes that were shipped in January 2014. Total revenue from this order was approximately \$448,000. A down payment of \$179,014 was received in the fourth quarter of 2013 and was recorded as deferred revenue on the Company's balance sheet at December 31, 2013. The Company delivered approximately 12 million *SPECTRUM* research cigarettes during the years ended December 31, 2012 and 2011 and recognized the related revenue of approximately \$807,000. There were no *SPECTRUM* cigarettes delivered during the year ended December 31, 2013.

Goodrich Tobacco was chosen to be a subcontractor under a government contract between RTI and the U.S. Food and Drug Administration (the "FDA") to supply very low nicotine ("VLN") fine cut tobacco to the FDA. The tobacco was shipped to the FDA in the fourth quarter of 2013 and result in gross proceeds to the Company of approximately \$225,000.

*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. The Company has engaged a major contract research organization (“CRO”) with extensive experience in tobacco exposure studies to assist the Company in certain regulatory activities at the Center for Tobacco Products (“CTP”) of the U.S. Food and Drug Administration (“FDA”) related to the Company’s research to support the development of potentially less harmful or modified risk cigarettes. The CRO will prepare meeting requests and meeting information packages to be submitted to the CTP, including protocols for clinical exposure studies to be carried out in the fall of 2014 on one of the Company’s potential modified risk cigarette candidates in development. The CRO will also assist 22nd Century in the execution of the FDA meetings and follow-up regulatory activities. 22nd Century expects to engage the CRO to carry out the subject exposure studies as well. 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*. 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.

*X-22* is a tobacco-based botanical medical product for use as an aid to smoking cessation. The *X-22* therapy protocol utilized in our 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 for 6 weeks, *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 and has been updated annually. 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.

Due to the limited effectiveness and/or serious side effects of existing FDA-approved smoking cessation products (all of which have been on the market approximately between 8 and 30 years), 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.

In contrast to the results of our Phase II-B trial results, the following independent studies have demonstrated that VLN cigarettes increase quit rates, whether used alone, in conjunction with Chantix® (varenicline) or nicotine replacement therapy (“NRT”) such as nicotine patches, gums or lozenges:

Hatsukami et al. 2010

- Phase II
- [www.ncbi.nlm.nih.gov/pubmed/23603206](http://www.ncbi.nlm.nih.gov/pubmed/23603206)

Hatsukami et al. 2013

- Phase II
- [www.ncbi.nlm.nih.gov/pubmed/23603206](http://www.ncbi.nlm.nih.gov/pubmed/23603206)

Walker et al. 2012

- Phase III/IV
- [www.ncbi.nlm.nih.gov/pubmed/22594651](http://www.ncbi.nlm.nih.gov/pubmed/22594651)

Becker et al. 2008

- Phase II
- [www.ncbi.nlm.nih.gov/pubmed/18629723](http://www.ncbi.nlm.nih.gov/pubmed/18629723)

Rezaishiraz et al. 2007

- Phase II
- [www.ncbi.nlm.nih.gov/pubmed/17978987](http://www.ncbi.nlm.nih.gov/pubmed/17978987)

A separate and yet unpublished 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 (NCT01250301). Certain results of this unpublished study were disclosed in a presentation at the 2013 Society for Research on Nicotine and Tobacco (“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. The study included one hundred smokers who were prescribed varenicline (trademarked Chantix, or Champix outside the U.S.) 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.

Although we believe that our VLN cigarettes are an effective aid to smoking cessation, we have suspended sponsoring further X-22 clinical trials and are currently in the process of identifying potential joint venture partners or licensees to fund the remaining X-22 clinical trials. Upon identifying a suitable joint venture partner or licensee, we will then request a meeting with the U.S. Food and Drug Administration (“FDA”), and thereafter we may resume our own sponsored X-22 clinical trials. There is no guarantee that we will (i) identify a joint venture partner or licensee to fund the remaining X-22 clinical trials, (ii) obtain the funds necessary to complete additional clinical trials, (iii) obtain FDA approval, or (iv) capture significant share of the smoking cessation market upon FDA approval.

#### *Annual Report on Form 10-K*

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2013 provides additional information about our business, operations and financial condition.

### **Three Months Ended June 30, 2014 Compared to Three Months Ended June 30, 2013**

#### *Revenue – Sale of products*

During the three months ended June 30, 2014, we realized revenue from the production of filtered cigars in our North Carolina manufacturing facility in the amount of \$16,114. We had no revenue in the three months ended June 30, 2013.

#### *Cost of goods sold – Products*

During the three months ended June 30, 2014, cost of goods sold were \$13,176 or 81.8% of revenue. The cost of goods sold relates to the manufacture of the filtered cigars and includes the cost of materials, labor and allocated overhead. We had no cost of goods sold in the three months ended June 30, 2013.

#### *Research and development expense*

Research and development (“R&D”) expense was \$263,335 in the three months ended June 30, 2014, an increase of \$98,248, or 59.5%, from \$165,087 in the three months ended June 30, 2013. This increase was primarily a result of increases in employee stock based compensation of approximately \$90,000, royalty and license fees of approximately \$38,000, and employee related costs of approximately \$12,000, partially offset by a decrease in research and development costs of approximately \$50,000 during the second quarter of 2014, as compared to the second quarter of 2013.

#### *General and administrative expense*

General and administrative expense was \$1,344,680 in the three months ended June 30, 2014, a decrease of \$55,835, or 4.0%, from \$1,400,515 in three months ended June 30, 2013. The decrease was mainly due to decreases in stock based compensation and cash payments to investor relation firms of approximately \$934,000 and \$69,000, respectively, partially offset by increases in employee stock based compensation of approximately \$503,000, employee related costs of approximately \$217,000, legal and professional fees of approximately \$60,000, NYSE MKT related costs of approximately \$58,000, costs relating to SEC filings and press releases of approximately \$40,000, and other administrative expenses of approximately \$56,000. In May 2014, we hired an individual in the capacity of General Counsel who also serves as Vice President and Secretary of the Company. The increases in stock based compensation and employee related costs include \$141,000 and \$168,000, respectively, incurred in connection

with the employment of our new General Counsel.

*Pre-manufacturing facility costs*

Our warehouse and cigarette manufacturing facility located in North Carolina continued to be primarily in a pre-manufacturing stage during the second quarter of 2014. During the second quarter of 2014, the Company continued to incur various expenses relating to preparing and upgrading the warehouse and manufacturing facility located in North Carolina for production. Expenses incurred during the three months ended June 30, 2014 amounted to \$274,582 and consisted primarily of expenses for salaries and benefits for employees, sub-contract labor, rent, utilities and other miscellaneous costs. There were no expenses relating to the cigarette manufacturing facility during the three months ended June 30, 2013. We did manufacture a small quantity of revenue generating filtered cigars during June 2014. The Company will commence manufacturing its proprietary cigarette brands at our manufacturing facility once the Membership Interest Purchase Agreement closes and the Company becomes a participating member of the MSA as previously discussed. Until such time, the Company will continue to manufacture tobacco products not covered by the MSA such as filtered cigars.

*Sales and marketing costs*

Sales and marketing costs were \$34,160 for the three months ended June 30, 2014 as compared to \$0 for the three months ended June 30, 2013. Sales and marketing expenses incurred during the three months ended June 30, 2014 were primarily related to costs associated with participation in a tobacco industry trade show and materials used for marketing trips to Europe and China.



*Amortization and depreciation expense*

Amortization and depreciation expense for the three months ended June 30, 2014 amounted to \$124,344, an increase of \$67,368 or 118.2% from \$56,976 for the three months ended June 30, 2013. Amortization expense relates to amortization taken on capitalized patent costs. Amortization expense for the three months ended June 30, 2014 was \$49,665, a decrease of \$6,554 or 11.7% from \$56,219 for the three months ended June 30, 2013. The decrease is primarily due to a change in the estimated useful lives of one of the patent families during the year ended December 31, 2013, partially offset by amortization on additional investments in patents during the first six months of 2014 and the year ended December 31, 2013 in the amount of \$281,959 and \$269,742, respectively. Depreciation expense for the three months ended June 30, 2014 was \$74,679, an increase of \$73,922 from \$757 for the three months ended June 30, 2013. This increase is mainly due to approximately \$2.9 million of cigarette manufacturing equipment placed in service during the second quarter of 2014.

*Warrant liability gain loss – net*

The warrant liability gain of \$74,117 for the second quarter of 2014 was due to the decrease in the estimated fair value of the warrants during the period. The decrease in the estimated fair value of the warrants is primarily attributable to the decrease in the Company's underlying stock price from \$3.25 per share at March 31, 2014, as compared to \$3.07 per share at June 30, 2014.

The warrant liability gain of \$1,258,502 for the second quarter of 2013 was due to the decrease in the estimated fair value of the warrants during the period. The decrease in the estimated fair value of the warrants is primarily attributable to the 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.

*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, 2014 to \$1,769 from \$81,879 in the three months ended June 30, 2013. This decrease of \$80,110 or 97.8% was primarily the result of a decrease in the amortization of debt discount and debt issuance costs relating to convertible notes issued on August 9, 2012 that were converted in August of 2013 and payment of the majority of the Company's interest bearing debt in the fourth quarter of 2013. The Company's demand bank loan is the only remaining interest bearing debt outstanding at June 30, 2014.

*Net loss*

We had a net loss in the three months ended June 30, 2014 of \$1,965,815, as compared to a net loss of \$445,955 in the three months ended June 30, 2013. The increase in the net loss of \$1,519,860, or 340.8%, was primarily the result of the decrease in the warrant liability gain – net in the amount of \$1,184,385, a decrease in interest expense and amortization of debt discount in the amount of \$80,110 and an increase in operating expenses of \$418,523.

**Six Months Ended June 30, 2014 Compared to Six Months Ended June 30, 2013**

*Revenue – Sale of products*

During the six months ended June 30, 2014, we realized revenue of \$463,649, consisting of \$447,535 in revenue derived from the sale of 5.5 million *SPECTRUM* research cigarettes during January 2014 and from the production of filtered cigars in our North Carolina manufacturing facility in the amount of \$16,114 during June 2014. We had no revenue in the six months ended June 30, 2013.

*Cost of goods sold – Products*

During the six months ended June 30, 2014, cost of goods sold were \$190,872 or 41.2% of revenue. The cost of goods sold consists of \$177,696 relating to the production of the *SPECTRUM* research cigarettes and \$13,176 relating to the manufacture of the filtered cigars. We had no cost of goods sold in the six months ended June 30, 2013.

*Research and development expense*

Research and development (“R&D”) expense was \$485,715 in the six months ended June 30, 2014, an increase of \$129,880, or 36.5%, from \$355,835 in the six months ended June 30, 2013. This increase was primarily a result of increases in employee stock based compensation of approximately \$39,000 and royalty and license fees of approximately \$78,000, during the six months ended June 30, 2014, as compared to the six months ended June 30, 2013.

*General and administrative expense*

General and administrative expense was \$2,349,867 in the six months ended June 30, 2014, a decrease of \$198,780, or 7.8%, from \$2,548,647 in six months ended June 30, 2013. The decrease was mainly due to a decrease in stock based compensation approximately \$1,006,000 to investor relations firms, partially offset by increases in employee related costs of approximately \$300,000, legal and professional fees of approximately \$181,000, NYSE MKT related costs of approximately \$133,000, costs relating to SEC filings and press releases of approximately \$60,000, and other administrative expenses of approximately \$130,000. In May 2014, we hired an individual in the capacity of General Counsel who also serves as Vice President and Secretary of the Company. The increase in employee related costs include \$168,000 incurred in connection with the employment of our new General Counsel.

*Pre-manufacturing facility costs*

Our warehouse and cigarette manufacturing facility located in North Carolina was primarily in a pre-manufacturing stage during the six months ended June 30, 2014. During the six months ended June 30, 2014, the Company continued to incur various expenses relating to preparing the warehouse and manufacturing facility located in North Carolina for production. Expenses incurred during the six months ended June 30, 2014 amounted to \$432,767 and consist primarily of expenses for salaries and benefits for employees, sub-contract labor, rent, utilities and other miscellaneous costs. There were no expenses relating to the cigarette manufacturing facility during the six months ended June 30, 2013. We did manufacture a small quantity of revenue generating filtered cigars during June 2014. The Company will commence manufacturing its proprietary cigarette brands once the Membership Interest Purchase Agreement closes and the Company becomes a participating member of the MSA as previously discussed. Until such time, the Company will continue to manufacture types of tobacco products not covered by the MSA such as filtered cigars.

*Sales and marketing costs*

Sales and marketing costs were \$34,160 for the six months ended June 30, 2014, as compared to \$0 for the six months ended June 30, 2013. Sales and marketing expenses incurred during the six months ended June 30, 2014 were primarily related to costs associated with participation in a tobacco industry trade show and materials used for marketing on trips to Europe and China.

*Amortization and depreciation expense*

Amortization and depreciation expense for the six months ended June 30, 2014 amounted to \$195,613, an increase of \$86,013 or 78.5% from \$109,600 for the six months ended June 30, 2013. Amortization expense relates to amortization taken on capitalized patent costs. Amortization expense for the six months ended June 30, 2014 was \$120,078 an increase of \$11,809 or 10.9% from \$108,269 for the six months ended June 30, 2013. The increase is primarily due to an adjustment to the 2013 amortization that was recorded in the first quarter of 2014 and by amortization on additional investments in patents during the first six months of 2014 and the year ended December 31, 2013 in the amount of \$281,959 and \$269,742, respectively, partially offset by a change in the estimated useful lives of one of the patent families during the year ended December 31, 2013. Depreciation expense for the six months ended June 30, 2014 was \$75,535, an increase of \$74,204 from \$1,331 for the six months ended June 30, 2013. This increase is mainly due to approximately \$2.9 million of cigarette manufacturing equipment placed in service during the second quarter of 2014.

*Warrant liability gain loss – net*

The warrant liability loss of \$3,993,153 for the six months ended June 30, 2014 was due to the increase in the estimated fair value of the warrants during the period. The increase in the estimated fair value of the warrants is primarily attributable to the increase in the Company's underlying stock price from \$2.14 per share at December 31, 2013, as compared to \$3.07 per share at June 30, 2014.

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. Secondly, a decrease in the underlying price of the Company's stock from \$0.75 at December 31, 2012 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.

*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, 2014 to \$3,518 from \$187,403 in the six months ended June 30, 2013. This decrease of \$183,885 or 98.1% was primarily the result of a decrease in the amortization of debt discount and debt issuance costs relating to convertible notes issued on August 9, 2012 that were converted in August of 2013 and payment of the majority of the Company's interest bearing debt in the fourth quarter of 2013. The Company's demand bank loan is the only remaining interest bearing debt outstanding at June 30, 2014.

*Net loss*

We had a net loss in the six months ended June 30, 2014 of \$7,280,943, as compared to a net loss of \$2,959,158 in the six months ended June 30, 2013. The increase in the net loss of \$4,321,785, or 146%, was primarily the result of an increase in the warrant liability loss – net in the amount of \$4,235,480, an increase in the warrant amendment inducement expense of \$144,548 and an increase in operating expenses of \$484,040, offset by a decrease in interest expense and amortization of debt discount in the amount of \$183,885, an increase in gain on the sale of machinery and equipment of \$85,621 and an increase in gross profit of \$272,777.

**Liquidity and Capital Resources**

*Working Capital*

As of June 30, 2014, we had positive working capital of approximately \$4.66 million compared to positive working capital of approximately \$6.76 million at December 31, 2013. The \$2.10 million decrease in our working capital position was mainly a result of the cash used in operating activities and investing activities in excess of net proceeds received in the sales of machinery and equipment and from the exercise of stock warrants and options.

*Cash demands on operations*

As stated above, we experienced a decrease in working capital of approximately \$2.10 million during the six months ended June 30, 2014. Excluding contract growing of our proprietary tobacco with farmers, extraordinary expenses such as potential clinical trials and potential capital expenditures for our North Carolina manufacturing facility, our

monthly cash expenditures are approximately \$400,000 including operating expenses attributable to our manufacturing facility. We believe that cash on hand at June 30, 2014 in the amount of \$4,172,795 is adequate to sustain operations and meet all current obligations as they come due for a period of approximately 8 months. This estimated period is expected to be longer as revenues from contract manufacturing is ramped up along with revenue from European sales and upon the closing of the NASCO Transaction, sales of the Company's proprietary products in the U.S.

Our Form S-3 universal shelf registration statement was filed with the U.S. Securities and Exchange Commission ("SEC") on April 18, 2014, and became effective on June 5, 2014. The universal shelf registration statement will allow, but not compel, management to raise up to \$45 million of capital over a three-year period through a wide array of securities at times and in amounts to be determined by management. We will utilize this option should capital requirements arise.

#### *Net Cash used in Operating Activities*

In the first six months of 2014, \$2,232,530 of cash was used in operating activities compared to \$1,507,064 of cash used in operating activities in the first six months of 2013; an increase of \$725,466. This increase in the use of cash in operations was primarily due to the increase in the cash portion of the net loss in the first six months of 2014, as compared to the first three months of 2013, in the amount of \$1,015,928. This cash loss was offset by a decrease in the use of cash used for working capital components related to operations in the amount of \$290,462.

#### *Net Cash provided by (used in) Investing Activities*

In the first six months of 2014, net cash provided by investing activities was \$69,054, as compared to \$29,018 of cash used in investing activities during the first six months of 2013. The increase in cash provided by investing activities of \$98,072 is primarily due to the net proceeds received on the sale of machinery and equipment during the quarter ending March 31, 2014 in the amount of \$631,484 partially offset by an increase of \$190,518 for the acquisition of patents, trademarks and machinery and equipment, an equity investment of \$250,000 and an advance of \$92,894.

### *Net Cash provided by Financing Activities*

During the first six months of 2014, we generated approximately \$505,672 from our financing activities mainly as a result of net cash proceeds received from the exercise of stock warrants and options in the amount of \$500,701. During the six months ended June 30, 2013, \$1,987,624 was provided by financing activities primarily as a result of net cash proceeds received from the issuance of preferred stock in the amount of \$2,034,664 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 \$6,393, respectively.

### **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*

We recognize revenue at the point the product is shipped to a customer and title has transferred. Revenue from the sale of our 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.

We were 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 Company’s mark, *SPECTRUM*. In September 2013, the Company received a purchase order for 5.5 million *SPECTRUM* research cigarettes that were shipped in January 2014. Total revenue from this order was approximately \$448,000. A down payment of \$179,014 was received in the fourth quarter of 2013 and was recorded as deferred revenue on the Company’s balance sheet at December 31, 2013. We delivered approximately 12 million *SPECTRUM* research cigarettes during the years ended December 31, 2012 and 2011 and recognized related revenue of approximately \$807,000. There were no *SPECTRUM* cigarettes delivered during the year ended December 31, 2013.

We license our patented technology to third parties. Revenue is recognized from licensing arrangements as contractually defined in licensing agreements. We account for milestone elements contained in licensing agreements in accordance with FASB ASC 605. Simultaneous with the signing of the Research License and Commercial Option Agreement, BAT paid us a non-refundable \$7,000,000. Revenue was recognized for this amount since delivery of the patented technology took place, we had no further performance obligations, and the fee was fixed. We will be entitled to receive additional payments from BAT, up to an additional \$7,000,000, during the Research Term in the event certain milestones are met by BAT with respect to BAT's research and development of our patent rights licensed by the Company to BAT. There are four separate milestones, two of which BAT would pay 22nd Century Ltd \$2 million for each milestone achieved, and two of which BAT would pay 22nd Century Ltd \$1.5 million for each milestone achieved. In addition, the Company could earn additional future royalties if BAT elects to exercise the Commercial Option Agreement during the Research Term.

No amount related to the research milestones was recognized during the six months ended June 30, 2014. A portion of the patented technology sublicensed to BAT is exclusively licensed to 22nd Century Ltd by a third party licensor. Pursuant to the terms of the license agreement with such licensor, 22nd Century Ltd is obligated to make a royalty payment to the licensor. 22nd Century Ltd estimates the payment to be approximately \$414,000, subject to the mutual agreement of 22nd Century Ltd and the third party licensor.



### *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. Non-amortizing intangibles are reviewed annually for impairment. We have not recognized any impairment losses during the six months ended June 30, 2014 or 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*

We use 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.

### *Income taxes*

We 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 net operating losses and the uncertainty of their future utilization, the Company has established a valuation allowance to fully offset its net deferred tax assets as of June 30, 2014 and December 31, 2013.

### *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 used as of June, 2014 would have the impact of increasing or decreasing the liability by approximately \$48,000.

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, 2013 exist in our internal control over financial reporting based on his 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 2014 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 subsidiaries are involved in any material legal proceeding.

**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, 2013 filed on January 30, 2014.

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

None

**Item 3. Default Upon Senior Securities.**

None

**Item 4. Mine Safety Disclosures**

None

**Item 5. Other Information**

None

**Item 6. Exhibits**

Exhibit 31.1 Section 302 Certification – Chief Executive Officer

Exhibit 31.2 Section 302 Certification – Chief Financial Officer

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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.

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 14, 2014 /s/ Joseph Pandolfino  
Joseph Pandolfino  
Chief Executive Officer

Date: August 14, 2014 /s/John T. Brodfuehrer  
John T. Brodfuehrer  
Chief Financial Officer