



July 30, 2014

## Patents Granted For 22nd Century Group's Technology to Virtually Eliminate Nicotine in Tobacco Plants

CLARENCE, N.Y.--(BUSINESS WIRE)-- 22nd Century Group, Inc. (NYSE MKT:[XXII](#)) today announced that the U.S. Patent and Trademark Office (USPTO) on July 29, 2014 and the Korean Intellectual Property Office on July 23, 2014, each granted a patent to the Company for its NBB technology that virtually eliminates nicotine in the tobacco plant. The resulting tobacco plants are planted, grown, harvested, cured, processed, and made into tobacco products, including cigarettes, exactly the same as conventional tobacco.

U.S. Patent 8,791,329, *Reducing Levels of Nicotinic Alkaloids in Plants*, contains 33 claims. South Korean Patent 10-1413122, also titled, *Reducing Levels of Nicotinic Alkaloids in Plants*, contains 15 claims. These two patents and related International Patent Application PCT/IB2006/001741, cover methods for producing tobacco plants with decreased nicotine levels and the resulting tobacco plants and products produced therefrom. There are various continuation and divisional patent applications related to these granted patents pending in both patent offices.

The term of U.S. Patent 8,791,329 has been extended by the USPTO by 1,309 days due to prosecution delays at the USPTO. Joseph Pandolfino, 22nd Century Group's Founder and CEO, stated, "We are pleased that the USPTO's patent term adjustment will extend the life of this key Company patent through September 2029. This technology will be utilized worldwide for our next generation very low nicotine (VLN) cigarettes, which we expect to have approximately 1% of the nicotine of conventional cigarettes – a 99% reduction." Conventional tobacco can easily be blended with the Company's VLN tobacco to produce tobacco with any desired nicotine content.

Patent applications for the NBB technology have been filed by 22nd Century worldwide and patents are currently issued to 22nd Century in the U.S., China, Europe, Japan, South Korea, Taiwan, Mexico, Australia and South Africa.

The NBB gene encodes a protein, "nicotine synthase," that is involved in the final step of nicotine biosynthesis. Having eluded scientists for decades, this protein can be down-regulated or up-regulated to produce tobacco varieties with a wide range of nicotine levels.

About 22nd Century Group, Inc.

22nd Century is a plant biotechnology company whose proprietary technology allows for the levels of nicotine and other nicotinic alkaloids (e.g., normicotine, anatabine and anabasine) in the tobacco plant to be decreased or increased through genetic engineering and plant breeding. 22nd Century owns or is the exclusive licensee of 129 issued patents in 78 countries plus an additional 44 pending patent applications. Goodrich Tobacco Company, LLC and Hercules Pharmaceuticals, LLC are wholly-owned subsidiaries of 22nd Century. Goodrich Tobacco is focused on commercial tobacco products and potentially less harmful cigarettes. Hercules Pharmaceuticals is focused on X-22, a prescription smoking cessation aid in development.

On September 17, 2013, 22nd Century Group entered into a Membership Interest Purchase Agreement (Purchase Agreement) to purchase all of the issued and outstanding membership interests of NASCO Products, LLC (NASCO), a North Carolina tobacco manufacturer and member of the Tobacco Master Settlement Agreement, known as the "MSA," administered by the National Association of Attorneys General (the NASCO Transaction). Consummation of the NASCO Transaction is subject to conditions, including a revised NASCO adherence agreement, of the settling states of the MSA, all of which the Company expects to be finalized within a few weeks. National distribution of the Company's proprietary products will commence shortly thereafter.

For additional information, please visit: [www.xxiiicentury.com](http://www.xxiiicentury.com)

*Cautionary Note Regarding Forward-Looking Statements: This press release contains forward-looking information, including all statements that are not statements of historical fact regarding the intent, belief or current*

*expectations of 22nd Century Group, Inc., its directors or its officers with respect to the contents of this press release. The words “may,” “would,” “will,” “expect,” “estimate,” “anticipate,” “believe,” “intend” and similar expressions and variations thereof are intended to identify forward-looking statements. We cannot guarantee future results, levels of activity or performance. You should not place undue reliance on these forward-looking statements, which speak only as of the date that they were made. These cautionary statements should be considered with any written or oral forward-looking statements that we may issue in the future. Except as required by applicable law, including the securities laws of the United States, we do not intend to update any of the forward-looking statements to conform these statements to reflect actual results, later events or circumstances, or to reflect the occurrence of unanticipated events. You should carefully review and consider the various disclosures made by us in our annual report on Form 10-K for the fiscal year ended December 31, 2013, filed on January 30, 2014, including the section entitled “Risk Factors,” and our other reports filed with the U.S. Securities and Exchange Commission which attempt to advise interested parties of the risks and factors that may affect our business, financial condition, results of operation and cash flows. If one or more of these risks or uncertainties materialize, or if the underlying assumptions prove incorrect, our actual results may vary materially from those expected or projected.*

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Source: 22nd Century Group, Inc.