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Mandating a Reduction in the Nicotine Content of Cigarettes Would Likely Decrease Both the Rate and Prevalence of Smoking

51% of participants who smoked 22nd Century's Very Low Nicotine cigarettes predicted that they would quit within one year

CLARENCE, N.Y.--(BUSINESS WIRE)-- 22nd Century Group, Inc. (NYSE MKT: [XXII](#)), a leader in tobacco harm reduction, announced today that *Addiction Journal* published online [a new report](#) investigating smokers' cost sensitivity for Very Low Nicotine cigarettes. Led by Dr. Eric C. Donny of the University of Pittsburgh Cancer Institute, the new publication found that, compared to conventional cigarettes, 22nd Century's Very Low Nicotine cigarettes reduced the number of cigarettes that the participants estimated they would smoke *at every price range tested*. This Phase III study included 839 participants who, over a 6-week period, first smoked their own brand and then were assigned to smoke one of five different nicotine content cigarettes. The researchers exclusively employed 22nd Century's SPECTRUM® brand cigarettes for their study. SPECTRUM® research cigarettes are provided through the National Institute on Drug Abuse, which is part of the National Institutes of Health.

Given that all previous trials investigating nicotine reduction behaviors have provided free cigarettes to clinical study participants, the authors studied the impact of a nicotine reduction policy within the real-world context of "normally priced" cigarettes. The study findings were compelling. Smokers of the lowest nicotine content group (SPECTRUM® 0.4mg/g) reported that at \$10/pack they would smoke only 4 cigarettes per day while smokers in the control group reported a consumption rate of 10 cigarettes per day – a 60% differential. The authors went on to predict that "... if a nicotine reduction policy were enacted, there would be an **increase** in smoking **cessation**."

Dr. Donny, *et al.* recommended that for Very Low Nicotine cigarettes "...to be maximally effective at reducing nicotine exposure and dependence," policy makers would need to establish either a preferential tax structure for Very Low Nicotine cigarettes, or simply set a maximum nicotine content for all cigarettes.

In conclusion, Dr. Donny, *et al.* stated that **"These data suggest that a policy mandating a reduction in nicotine content of cigarettes would likely decrease both the rate and prevalence of smoking."** And if Very Low Nicotine cigarettes were available exclusively, study scientists found that 51% of participants who smoked the Very Low Nicotine cigarettes predicted that they would simply stop smoking within twelve months. An additional 25% reported that they would continue to smoke but would smoke less. 22nd Century is the only company in the world capable of producing Very Low Nicotine tobacco cigarettes with 95% less nicotine than conventional brands – without any artificial extraction or chemical processes.

"It is gratifying to know that so many scientists and researchers around the world are expounding the public health benefits of 22nd Century's Very Low Nicotine cigarettes; that said, the FDA, alone, has the power to initiate a national nicotine policy in the United States," noted Henry Sicignano, III, President and Chief Executive Officer at 22nd Century Group. "Putting politics aside, we believe that 22nd Century's Very Low Nicotine cigarettes could be tremendously important to smokers everywhere."

About 22nd Century Group, Inc.

22nd Century is a plant biotechnology company focused on technology which allows it to increase or decrease the level of nicotine in tobacco plants and the level of cannabinoids in cannabis plants through genetic engineering and plant breeding. The Company's primary mission is to reduce the harm caused by smoking. 22nd Century currently owns or exclusively controls more than 200 issued patents and more than 50 pending patent applications around the world. Visit www.xxiicentury.com for more information.

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, including but not limited to our future revenue expectations. 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, 2015, filed on February 18, 2016, 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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