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## **New Zealand Study Recommends 22nd Century's VLN Cigarettes as an Effective Tobacco Control Strategy**

***VLN cigarettes reduce nicotine dependence and improve health and financial outcomes for smokers***

CLARENCE, N.Y.--(BUSINESS WIRE)-- 22nd Century Group, Inc. (NYSE MKT:[XXII](#)), a plant biotechnology company that is focused on tobacco harm reduction and cannabis research, announced today that the journal *Nicotine and Tobacco Research* has published a [new study](#) showing how 22nd Century's Very Low Nicotine (VLN) cigarettes can be part of an effective tobacco control strategy for forward-looking countries like New Zealand. The study concluded that reducing the price of VLN cigarettes compared to regular cigarettes will reduce nicotine dependence and improve health and financial outcomes for smokers.

The New Zealand Government is committed to achieving its "[Smokefree 2025](#)" goal, which aims to reduce smoking prevalence and tobacco availability to minimal levels, thereby making New Zealand essentially a "smokefree" nation by 2025. Very Low Nicotine cigarettes have huge potential for helping New Zealand reach its Smokefree 2025 goals. VLN cigarettes have the behavioral and sensory aspects of conventional cigarettes while delivering negligible levels of nicotine. Numerous studies indicate that 22nd Century's Very Low Nicotine cigarettes, with a nicotine content of 0.4mg/g (95% less nicotine than conventional tobacco), do not support addiction. Conducted by scientists from The University of Canterbury and Health New Zealand, the study entitled: *Estimating Demand and Cross-Price Elasticity for Very Low Nicotine Content Cigarettes Using a Simulated Demand Task* compared demand for regular cigarettes and Very Low Nicotine cigarettes across several price points. The study confirmed that imposing a modest price differential between conventional cigarettes and VLN cigarettes will result in smokers buying more non-addictive VLN cigarettes.

Despite the difficulty of adjusting to a new cigarette, participants reported they would convert to smoking VLN cigarettes as the price of regular cigarettes increases. Accordingly, the study suggests that Very Low Nicotine cigarettes have a real potential to reduce tobacco consumption and increase quit rates.

In conclusion, the study notes that "there are multiple ways in which Very Low Nicotine cigarettes may contribute to a nicotine reduction policy." One option the authors describe is to reduce the maximum allowable nicotine content of cigarettes gradually to a non-addictive level. But the authors prefer a "more realistic strategy" of making VLN cigarettes available at lower prices than regular cigarettes.

"Many studies now show how valuable VLN cigarettes would be in reducing the harm caused by smoking," explained Dr. Paul Rushton, 22nd Century's Vice President for Plant Biotechnology. "Like the scientists responsible for this newest New Zealand-based study, 22nd Century urges countries around the world to adopt nicotine reduction policies as quickly as possible."

### **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 in tobacco is to reduce the harm caused by smoking. The Company's primary mission in cannabis is to develop proprietary cannabis strains for important new medicines and agricultural crops. 22nd Century currently owns or exclusively controls more than 200 issued patents and more than 50 pending patent applications around the world. Visit [www.xxiiicentury.com](http://www.xxiiicentury.com) and [www.botanicalgenetics.com](http://www.botanicalgenetics.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, 2016, filed on March 8, 2017, 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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