Medicago is a Canadian biotechnology company, twenty-five percent (25%) owned by Philip Morris International (PMI).1

Background

In October 2020, the Government of Canada announced a deal with Medicago to invest up to CAD $173 million (US $131 million) for COVID-19 vaccine research and development and the construction of a manufacturing facility in Quebec City.2,3,4 In December 2021, Medicago sought regulatory approval for its COVID-19 vaccine from Health Canada and confirmed it was also seeking approval from the U.S. Food and Drug Administration (FDA) and the U.K.’s Medicines and Healthcare Products Regulatory Agency (MHRA).5 Additionally, clinical trials are being undertaken in Japan with plans to submit for regulatory approval in Spring 2022.6 The U.S.A., U.K., Argentina and Brazil are also among countries where trials are being undertaken, with several Central and South American countries soon to be added.7 In July 2020, the head of Medicago stated that distribution of the vaccine is expected to be rolled out through private-public partnerships.8

As of February 2022, Medicago’s vaccine, branded as Covifenz, has received marketing approval from Health Canada.9 The Canadian government plans to procure up to 76 million doses of this vaccine, in addition to other approved vaccines.10
The Government of Canada's investment in Medicago became a subject of controversy when, in October 2020, PMI issued its own press release to coincide with the statements from Medicago and the Canadian government in a widely disseminated global message. PMI praised the “public private partnership,” stating that it was in line with “PMI's own efforts to leverage science and innovation.” Several media outlets across the world reported PMI's comments. In response, public health advocates raised concerns about the investment and urged other public health organizations to support a call for the Canadian government to end the conflictual agreement with Medicago, claiming that it breaches several articles of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC), to which Canada is a Party.

Since then, there have been reported efforts by Medicago to publicly distance itself from PMI. For example, in December 2020, Medicago replaced its president and CEO, who was a former vice-president of PMI. Further, Medicago has not mentioned PMI in any of its 2022 news releases.

The extent of PMI's involvement in vaccine development remains unclear and the tobacco giant has hinted that it is open to offers for its holding in Medicago from suitable organizations. However these suggestions did not appear in PMI's 2020 annual report. Instead, the report provided details of Medicago's collaboration with the Canadian government.

How Could Medicago Benefit PMI and Complicate WHO FCTC Implementation?

1. **Philip Morris is able to use its partnership with Medicago as part of its corporate marketing, linking the tobacco company to vaccine development progress.**

A number of news outlets around the world reported on PMI's October 2020 statement, lauding the partnership and contributing to the controversial “normalization” of such a partnership. Such news reports mentioned PMI and vaccines in the same breath. In some articles, the company is described as "Medicago, backed by cigarette maker Philip Morris International, is Canada's most advanced COVID-19 vaccine project," giving the impression that PMI is leading Canada's vaccine development.

Additionally, statements by Medicago on the progress of the vaccine's development clearly mention its ownership by the Japanese company Mitsubishi Tanabe Pharma as well as PMI.

Aligning the PMI brand with a vaccine for a respiratory illness (COVID-19) effectively overlooks the fact that tobacco companies' products are contributing to health harms. During PMI's acquisition of asthma inhaler maker Vectura in 2021, many media articles mentioned PMI's role in the vaccine initiative. Notably, PMI's Vectura acquisition was denounced by medical societies as reprehensible, questioning whether a tobacco company should acquire a company that cures respiratory illnesses that may be caused by tobacco products.

2. **PMI may use Medicago vaccine distribution as a corporate social responsibility (CSR) strategy.**

Medicago has gained approval for its vaccine in Canada and is seeking approval in other high-income countries such as the U.S.A. In addition, the vaccine could be distributed in low- and middle-income countries (LMICs). PMI could leverage this as part of a CSR strategy to help the company launder its image, a tactic that can help tobacco companies pave the way to gain access to policymakers. This...
would be yet another example of how tobacco companies have continued to promote their own agenda and expand their business, even in the midst of a pandemic, all while selling products that cause health and social harms.\(^{26}\)

Global distribution of the vaccine could be possible through Medicago's partnership with GlaxoSmithKline (GSK), a British pharmaceutical company, and Canadian government vaccine donations.\(^{27}\) Canadian donations of existing vaccines have thus far reached twenty-seven (27) countries across the globe.\(^{28}\) In the future, these donations could include Medicago vaccines. Once Medicago vaccines reach these countries, PMI and its local offices may use this as part of their CSR strategies or corporate marketing efforts. It may even attempt to undermine or seek to reverse the ban on tobacco-related CSR in countries such as Nepal, Niger and Uganda.

3. **PMI gets an opportunity to call Canada, a tobacco control leader, a partner.**

In October 2020, PMI issued a press release on the partnership between Medicago and Public Services and Procurement Canada (PSPC), which requires Medicago to supply up to 76 million doses of the vaccine.\(^{29}\) The Canadian government’s investment in Medicago is through another department, Science & Economic Development (ISED), which committed up to CAD $173 million (US $131 million) for vaccine research and development and to construct a manufacturing facility in Quebec City.\(^{30}\) This was dubbed one of the largest federal government investments in vaccine development.\(^{31}\) This has the effect of positioning PMI, via Medicago, as a partner of the Canadian government, which is viewed as a global leader in tobacco control.\(^{32}\)

4. **PMI may use Medicago links to lobby governments for further “partnerships.”**

Canada’s lobbying registry revealed that the large investment in Medicago was preceded by intense lobbying, with Medicago representatives having met government officials twenty-four (24) times since 2019.\(^{33}\) Lobbying can also be extended through ties with larger pharmaceutical companies. For example, Medicago partnered with GSK, using its adjuvant (efficacy booster) for Medicago’s COVID-19 vaccine.\(^{34,35,36}\) Notably, GSK has global reach and relationships with most governments across the world; thus it is difficult to ignore the potential risk that GSK may play a role in facilitating private-public partnerships between tobacco-backed Medicago and governments across the globe.

---

**Medicago’s COVID-19 Vaccine is “Derived from Tobacco”**

Medicago’s COVID-19 vaccine uses an Australian non-commercial species of tobacco named *Nicotiana Benthamiana* to provide proteins called virus-like particles (VLPs) that mimic the structure of the coronavirus to provoke an immune response.\(^{37,38}\) In a media statement, PMI highlighted *Nicotiana Benthamiana*’s close relationship to the tobacco plant used for tobacco products.\(^{39}\)
Recommendations for Governments

Governments have a responsibility to protect public health policies from tobacco industry influence. Thus, it is imperative for governments to take measures to counter the various aspects of tobacco industry interference.

RECOMMENDATIONS: What must governments do?

In accordance with the WHO FCTC, governments must:

A. Clearly define “tobacco industry” as tobacco manufacturers, wholesale distributors and importers of tobacco products; including all agents, subsidiaries, affiliates and all those receiving tobacco funding, including pharmaceutical companies that are acquired or partially funded by tobacco companies.

Along with conflict-of-interest rules/codes of conduct, this will prevent the tobacco industry from exploiting its relationships with these companies to undermine tobacco control policies. This will also improve governments’ ability to limit interactions to those strictly necessary for regulation when it comes to the tobacco industry.

B. Require information from the tobacco industry to ensure that the government is aware of all the agents linked to it (Article 5.3 Guidelines). Also adopt a code of conduct to guide government officials on how to avoid conflicts of interest with the tobacco industry.

C. Raise awareness about the tobacco industry’s tactics and ensure that the tobacco industry is not considered or falsely labeled “sustainable.” Ban all forms of corporate social responsibility (CSR) from the tobacco industry, including those from its related companies (Article 5.3 Guidelines, Article 13 Guidelines).

D. Strengthen governance rules (such as implementing codes of conduct, limiting interactions, rejecting contributions, etc.) to protect government officials from interference from the tobacco industry and its affiliates and subsidiaries. (Article 5.3 Guidelines). For example:

- Ensure that government partners or collaborators in the pharmaceutical industry do not include those that are funded by the tobacco industry as that would create a conflict of interest and cast doubt on the integrity of the institutions/offices involved.

E. Investigate tobacco industry mergers and acquisitions. Ensure that the tobacco industry and its subsidiaries and affiliates, which are furthering its business of promoting addictive and harmful products, are not given any incentives, benefits or privileges to run its business (Article 5.3 Guidelines). This will also prevent tobacco companies from securing government incentives through subsidiaries.

F. Ensure that government investments are not placed in tobacco and tobacco-affiliated stocks, or other interests, as this would incentivize the tobacco industry's overall business (Article 5.3 Guidelines).

G. Take into account the harms caused by the tobacco industry and the future harms it will likely cause given its history and business model, and ensure that the industry pays for the harms caused instead of allowing it to profit from the same.

H. Adopt binding policies that reflect Article 5.3 and its Guidelines, including legislation that regulates both the public and private sector and covers a variety of government sectors. For example, Uganda has a comprehensive section on Article 5.3 in its Tobacco Control Law.

Adopted from: Big Tobacco's Investments in and Acquisitions of Pharmaceutical Companies. STOP, October 2021.
Philips Morris International and Medicago's COVID-19 Vaccine

Endnotes

1 Philip Morris International Inc. Reports 2021 Third-Quarter Reported Diluted EPS of $1.55 and Adjusted Diluted EPS of $1.58, Representing Currency-Neutral Growth of 8.5%. Archives, US Securities and Exchange Commission; October 20, 2021. Available at: https://www.sec.gov/Archives/edgar/data/1413329/000141332921000086/earningsreleasepm-ex991xq3.html#text=a%20favorable%20impact%20related%20to%20equity%20ownership%20dilution%20in%20medicago%2C%20inc.%20of%20%240.02%20per%20share%20from%20approximately%2032%20previously%3B%20

2 In addition, Ottawa will invest 173 million Canadian dollars (131 million US dollars) for Medicago to build a plant for the production of vaccines in the province of Quebec.


5 “Medicago will now seek regulatory approval from Health Canada as part of a rolling submission, the company said. It has also initiated the regulatory filing process with the FDA and the UK’s Medicines and Healthcare products Regulatory Agency (MHRA).”


See also: Mitsubishi Tanabe to bring plant-derived COVID vaccine to Japan. Nikkei Asia; September 29, 2021. Available at: https://asia.nikkei.com/Spotlight/Coronavirus/COVID-vaccines/Mitsubishi-Tanabe-to-bring-plant-derived-COVID-vaccine-to-Japan


See also: Medicago: Plant-based VLP. COVID-19 Vaccine Tracker. Available at: https://covid19.trackvaccines.org/vaccines/26/

8 “I don’t have a crystal ball and as this situation develops, it’s going to put pressure on every model of public health we’ve relied on, because we’ve never had anything of this nature before. It puts demands on entire world modeling that will force new solutions. It’s definitely going to require public-private partnership. I think that will be inevitable. Will it be established agencies like the WHO? None of the manufacturers have enough capacity yet to cover the entire world.”

Philip Morris International and Medicago’s COVID-19 Vaccine


14 Organizational sign on letter: Urge Canadian government to terminate conflictual agreement with Medicago. Corporate Accountability. Available at: https://actionnetwork.org/petitions/organizational-sign-on-letter-canadian-government-terminate-conflictual-agreement-with-medicago/

15 “In July, it announced plans to distance itself from a significant shareholder, Philip Morris International, which owns about one-third of the company — a controversial association with Big Tobacco that has been the source of roadblocks and criticism. Then in December, the company replaced its president and CEO.”


18 Guidelines for implementation of Article 5.3 of the WHO Framework Convention on Tobacco Control on the protection of public health policies with respect to tobacco control from commercial and other vested interests of the tobacco industry. Decision WHO FCTC COP3(7), November 2008. Available at: https://www.who.int/fctc/guidelines/article_5_3.pdf

19 Guidelines for implementation of Article 5.3 of the WHO Framework Convention on Tobacco Control on the protection of public health policies with respect to tobacco control from commercial and other vested interests of the tobacco industry. World Health Organisation. Available at: https://www.who.int/fctc/guidelines/article_5_3.pdf


See also: Maharjan, P.M.; Choe, S. Plant-Based COVID-19 Vaccines: Current Status, Design, and Development Strategies of Candidate Vaccines. Vaccines 2021, 9, 992. https://doi.org/10.3390/vaccines9090992


“Medicago, backed by cigarette maker Philip Morris International, is Canada's most advanced COVID-19 vaccine project, but lags larger, global rivals.”


See also: Francesca Washtell. Marlboro maker swoops on UK health firm: Philip Morris in £1bn takeover by of inhaler group Vectura. This is Money, July 9, 2021. Available at: https://www.thismoney.co.uk/money/markets/article-9774165/Marlboro-maker-Philip-Morris-swoops-UK-health-firm-Vectura.html
Philip Morris International and Medicago’s COVID-19 Vaccine

25 President’s Message: ATS Condemns the Acquisition of Vectura Group by Phillip Morris, International. ATS News; August 2021. Available at: https://news.thoracic.org/community/presidents-message/2021-august.php

See also: Re: Request to shareholders to reject the Vectura Board’s recommendation of the Philip Morris International (PMI) Offer for Vectura Group plc. Tobacco Free Portfolios; August 17, 2021. Available at: https://tobaccofreeportfolios.org/wp-content/uploads/2021/08/Vectura-letter.pdf


See also: COVID-19, Tobacco Tactics, updated 15 June 2021. Available at: https://tobaccotactics.org/wiki/covid-19/


30 “Medicago, a Quebec-based biopharmaceutical company, has reached an agreement with Public Services and Procurement Canada (PSPC) to supply up to 76 million doses of its vaccine candidate for COVID-19.

The partnership, according to a statement from Philip Morris International, is subject to Health Canada’s approval.

Another department of the Canadian federal government, Science & Economic Development (ISED), will contribute C$173 million (approximately US$131 million) to Medicago to support its ongoing vaccine development and clinical trials, and for the construction of its Quebec City manufacturing facility.”

31 Appearance before the Standing Committee on Industry, Science and Technology by the minister of Innovation, Science and Industry – February 04, 2020. Government of Canada; February 04, 2021. Available at: https://ised-isde.canada.ca/site/transparency/en/appearance-standing-committee-industry-science-and-technology-minister-innovation-science-and#:~:text=one%20of%20the%20largest%20investments%20was%20to%20quebec-based%20medicago%20where%20%24173%20million%20was%20provided%20to%20support%20the%20development%20of%20their%20novel%20canadian-developed%20plant-based%20virus-like-particle%20(vlp)%20vaccine%20and%20the%20construction%20of%20a%20gmp%20facility

32 In the latest WHO report on the global tobacco epidemic (MPOWER 2021), Canada was among the countries with best practices as well as highest level of achievement. See: WHO report on the global tobacco epidemic 2021: addressing new and emerging products. WHO, July 27, 2021. Available at: https://www.who.int/teams/health-promotion/tobacco-control/global-tobacco-report-2021

See also: Canada, Global Tobacco Index, 2021. Available at: https://globaltobaccoindex.org/country/CA

See also: Canada, The Tobacco Atlas. Available at: https://tobaccoatlas.org/country/canada/

33 “A Global News analysis of the federal lobby registry shows that from 2017 to March of 2020, when the pandemic was declared, Medicago representatives met with government officials 24 times, seeking “partnerships and funding to support research, development and commercialization of vaccines” and to prepare against “future outbreaks of emerging infectious disease”.”


Acknowledgements and Authorship

This brief was prepared by Deborah Sy and Ambika Narain for the Global Center for Good Governance in Tobacco Control (GGTC), a partner in STOP, a tobacco industry watchdog, with inputs from Les Hagen of ASH Canada. Support from the African Tobacco Control Alliance, CIET Uruguay, Coalición América Saludable (CLAS), Corporate Accountability, FIC InterAmerican Heart Foundation, the Red National Anti-Tobacco Network (RENTA), Red PaPaz (Colombia) and Salud Justa. Layout by Vital Strategies.

About STOP (Stopping Tobacco Organizations and Products)

STOP is a global tobacco industry watchdog whose mission is to expose the tobacco industry strategies and tactics that undermine public health. STOP is funded by Bloomberg Philanthropies and comprised of a partnership among the Tobacco Control Research Group (TCRG) at the University of Bath, The Global Center for Good Governance in Tobacco Control (GGTC), the International Union Against Tuberculosis and Lung Disease (The Union) and Vital Strategies. For more information, visit exposetobacco.org.