



INSTITUTE FOR  
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Dr Mariângela Batista Galvão Simão  
WHO Assistant Director General for  
Access to Medicines, Vaccines and Pharmaceuticals

**An open letter**

Dear Dr. Simao

It is with great concern that we hear of the possible decision by the World Health Organisation to reject COVIFENZ®, the COVID-19 vaccine made by Medicago Inc, that was recently approved in Canada. We write to oppose this decision and ask the WHO to reconsider.

Are we really in a position to turn down new COVID vaccines, in a world where according to the WHO's coronavirus (COVID-19) dashboard, only 57.05 in every 100 people in the world are "fully vaccinated", a number that drops to below 5 per 100 people in countries like Madagascar, Malawi and Cameroon? A reminder that in October 2021, the WHO's Independent Allocation of Vaccines Group (IAVG) outlined a Strategy to Achieve Global COVID-19 Vaccination by Mid-2022. On 23 December 2021, IAVG issued a statement that none of the interim targets had been met. An estimated 1.4 billion eligible people needed to be urgently immunized, many of whom were in the highest risk groups for death and serious illness. The gaps were most pronounced in low-and lower-middle income countries.

Medicago Inc's minority ownership by the tobacco giant Philip Morris International Inc. appears to be the concern. We share any concerns about the marketing of smoking tobacco, but the manufacture of a COVID vaccine in *Nicotiana benthamiana*, a distant weedy relative of smoking tobacco in no way furthers or promotes the use of tobacco for any other purpose than for making vaccines. Medicago itself is a pioneering company that is applying its technology to the manufacture of vaccines that could contribute to Global Health. Is it wrong to encourage companies like PMI to change their business model away from smoking products? The European Union is currently funding a Horizon 2020 Research and

Innovation programme to develop tobacco plants for the production of medicines like vaccines, in which PMI is supported as a research partner.

Medicago's technology involving the use of a plant manufacturing platform is ground-breaking, but in a totally different way to the innovative technologies used to manufacture the first COVID vaccines. The plant platform offers manufacturing speed and scalability, two advantages that are imperative if we are to make an impact on truly global vaccination.

From the plant scientific community, we urge WHO not to reject this important addition to the global fight against COVID 19.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Julian Ma', followed by a small mark that looks like 'B2'.

Prof. Julian Ma BDS, FDS RCS(Ed), PhD

Hotung Chair of Molecular Immunology  
Director of the Institute for Infection and Immunity

*On behalf of 215 co-signatories from the international plant science community, from 20 countries and 6 continents, including 61 senior academic professors and 25 senior representatives from the plant industrial sector. This letter represents our personal views and not those of the institutions we are employed by.*