

BioLingus to develop a Sublingual Vaccine for COVID in cooperation with the Korean CHA Vaccine Institute and PanGen Biotech

- Development of sublingual COVID-19 subunit vaccine : the potential for a better protective efficacy and improved thermal stability during distribution and storage compared to conventional COVID-19 vaccines
- The project will contribute to the global healthcare by developing a sublingual vaccine platform through the global research collaboration

Biolingus IP II GmbH and the CHA Vaccine Institute Co., Ltd., with support from the Korean biotech company PanGen Biotech Inc. will collaborate to develop a sublingual vaccine for COVID.

The project has received research funding from The Research Investment for Global Health Technology Fund (The RIGHT Fund).

The RIGHT Fund is a Public-Private Partnership (PPP) funding agency between the Ministry of Health and Welfare of South Korea, Bill & Melinda Gates Foundations, and Korean life science companies which is dedicated to supporting global health R&D. The RIGHT Fund financially supports R&D projects for vaccines, therapeutics, and diagnostics technology tackling endemic and emerging infectious diseases in LMICs.

The granted R&D project is 'Development of sublingual COVID-19 subunit vaccine,' in which CHA Vaccine Institute, PanGen Biotech, and BioLingus will develop a sublingual tablet or drop type of recombinant subunit COVID-19 vaccine. Sublingual vaccine as tablet type are dissolved under the tongue and absorbed across the mucous membrane. The sublingual COVID-19 vaccine uses sublingual mucosal delivery technology to deliver the vaccine to the mucous membrane. Unlike conventional injectable COVID-19 vaccines, a sublingual COVID-19 vaccine can induce mucosal immunity, thereby effectively preventing viral infections at the mucosal frontier and reducing viral release.





In addition, conventional injectable COVID-19 vaccines require storage and distribution in a refrigerator or freezer. However, a sublingual vaccine can be stored at room temperature; therefore, they can resolve vaccine inequities by reducing distribution costs and improving vaccine accessibility in low- and middle-income countries (LMICs). Furthermore, such needle-free vaccines can improve immunization especially in LMICs where there are not enough healthcare professionals and medical facilities. Through driving effective COVID-19 vaccine rollout in LMICs with a sublingual COVID-19 vaccine, the risk of new variants emerging can be lowered, which might help solve the global pandemic situation.

In this project, CHA Vaccine Institute provides the adjuvant to be used in the COVID-19 subunit vaccine. PanGen Biotech supplies the antigen of the COVID-19 vaccine, and BioLingus provides formulations of the sublingual vaccine.

Jung Sun Yum, CEO of CHA Vaccine Institute, said, "We expect to develop a sublingual vaccine platform in preparation for future pandemics through global research collaboration based on CHA Vaccine Institute's technology."

Yves Decadt, CEO of BioLingus commented :"We are very excited about this project with the potential to be a game-changer in how COVID-vaccines can be administered in the future."

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