



PRESS RELEASE

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ZICCUM AB submits patent application for new temperature-stable, dry-powder formulation of virus belonging to same family as Measles

Lund 20 December 2019. **Temperature demands on vaccines are getting tougher, as underimmunisation becomes more urgent. As part of the WHO's strategic mission to vaccinate more people worldwide, it now demands that vaccines must be stored at +40 degrees C for at least three days in order to earn CTC (Controlled Temperature Chain) approval ⁽¹⁾. Ziccum is now applying for one patent that will cover a range of dry-formulated viruses and vaccines that can meet CTC demands, including new formulations of measles vaccines.**

Ziccum's new, active, temperature-stable, dry-powder formulated viruses can be stored at +40 degrees C for at least one week with no loss of active ingredient, not only meeting, but surpassing, WHO CTC requirements. The formulation is unique, according to the company, and could lead to a significant global increase in the number of people who can be vaccinated. The company, which dries liquid viruses and vaccines using its LaminarPace™ drying technology, has now submitted a formal patent application for the new formulation.

Cracking the Cold Chain

"This solves a problem no one has been able to solve before," says CEO Göran Conradson. "We can formulate vaccines that are safe and stable to transport, and will not need costly refrigeration equipment during the crucial last mile to reach the people who need them most. Under-immunization is an urgent priority right now. For example—if the US had Samoa's current number of measles cases, 7 M Americans would be infected. Dry formulations of vaccines could play an important part in helping meet the urgent need for better vaccination coverage worldwide."

Measles vaccines urgent – UNICEF

With measles cases more than doubling in 2018, and the vast majority of measles deaths being children under 5 yrs ⁽²⁾, UNICEF identifies increased measles immunisation as a particularly urgent priority. To prevent future measles outbreaks

the WHO recommends 95% immunization coverage worldwide. UNICEF points out that globally 136 million children require two measles doses a year, which in year 2017 equated into a global demand for approximately 450 million doses for all country routine immunization programmes, taking into account coverage and wastage rates. Indicating 40% wastages. UNICEF supplied approximately 65% of 270 million doses at a value of USD 125,7⁽³⁾.

“Vaccines formulated as dry powders would require no refrigerated cold chains to reach full coverage—even in remote and hot areas” Conradson says. “And would constitute an exceptionally low-waste vaccine solution.”

1. https://www.who.int/immunization/programmes_systems/supply_chain/ctc/en/
2. [Washington Post](#) 6 December 2019
3. UNICEF: Measles Monovalent and Measles and Rubella Combination Vaccines: Supply and Demand Update, UNICEF Supply Division, August 2019

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About Ziccum

Ziccum AB (publ) develops new patented formulations of biological drugs where sensitivity to temperature differences, especially during transportation, currently limits medical and so commercial potential. The company's patented technology, LaminarPace, develops dry powder formulations of drugs and vaccines that currently only exist in liquid form. By doing so Ziccum can increase the availability of drugs and vaccines in existing markets—and open up new ones.

This press release has been submitted for publication by the company's CEO on 20 December at 1400.