



Quick Mechanism Summary

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Vaccine class

Quick description

Outline color indicates the availability of the data :

- published (peer-reviewed),
- not published (not reviewed by independant scientists)

Broken down by severity (defined by each trial) :

- severe case (without hospitalisation)
- symptomatic: fever, cough etc... often confirmed by PCR test

⌚ Efficacy :



--% (vs severe cases)



--% (vs symptomatic cases)

The efficacy assessment is different for each trial/vaccine so try not to compared them too much..

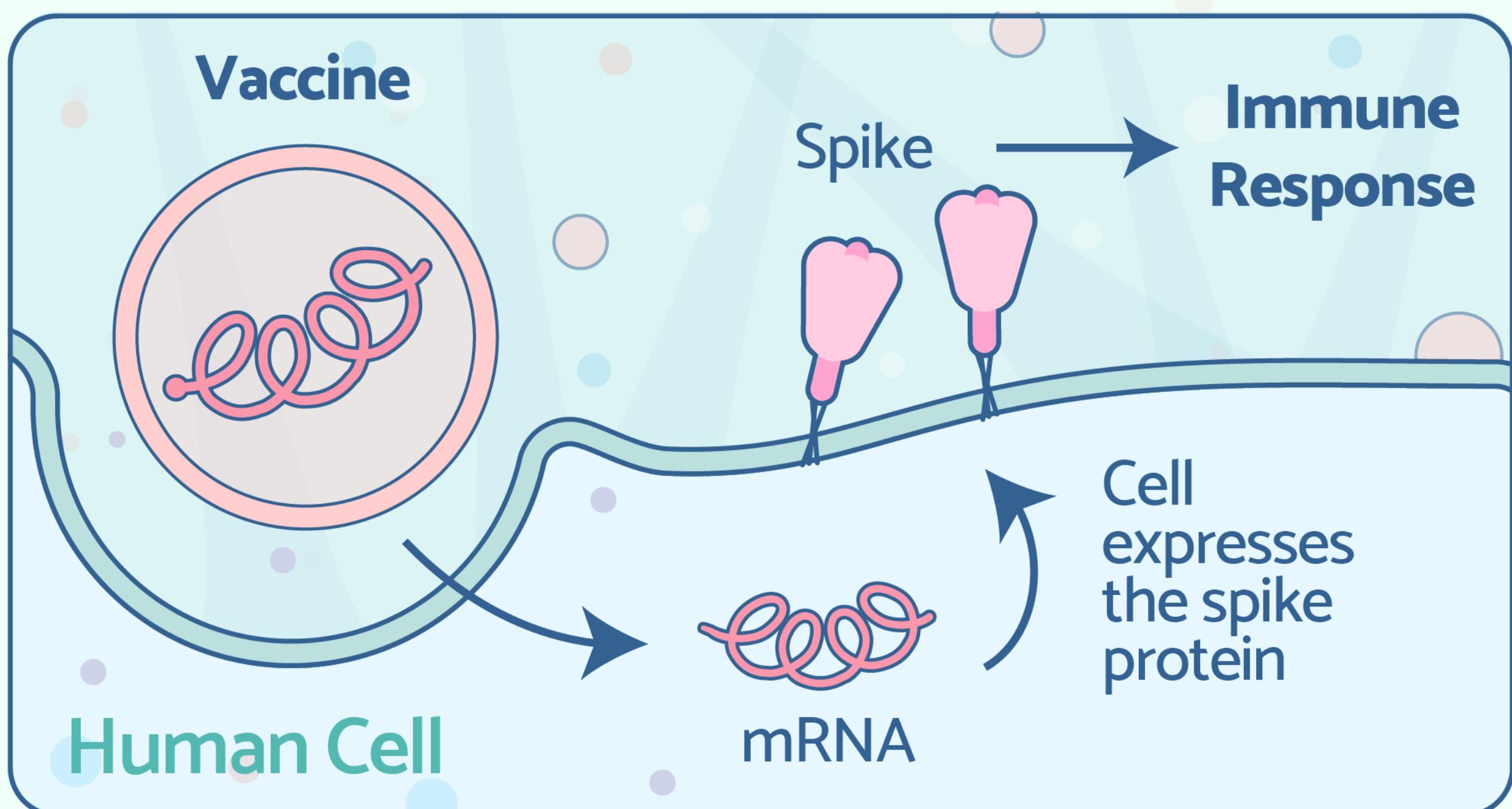
▣ Dosing : # of doses and how far apart

▢ Storage : conditions of storage

mRNA-1273

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Moderna



Encapsulated mRNA Vaccine

mRNA encoding for the Spike protein is protected in a lipid nanoparticle (like a soap bubble). Once absorbed, the cell expresses the Spike protein resulting in an immune response.

Efficacy : Phase III **100%** (vs severe cases*)
Phase III **94%** (vs symptomatic cases*)

Dosing : 0.5mL - 2 doses - 28 days apart

Storage : **-20°C** - 6 months
+2-8°C - 30 days

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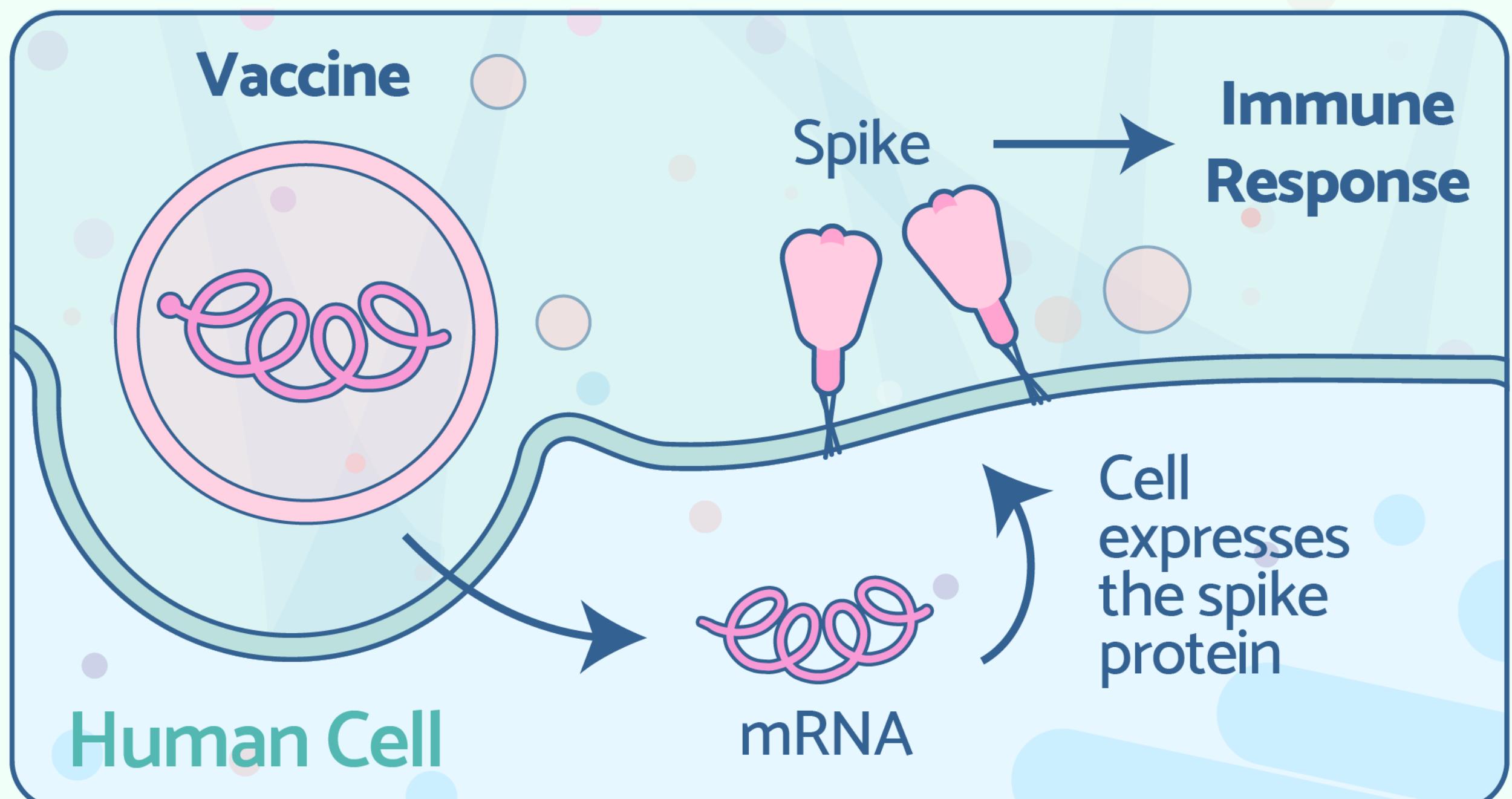
Last updated on 16/04/21

*US trial - 28 days after vaccination

BNT162b2 / Comirnaty

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BioNTech/Pfizer



⌚ Encapsulated mRNA Vaccine

mRNA encoding for the Spike protein is protected in a lipid nanoparticle (like a soap bubble). Once absorbed, the cell expresses the Spike protein resulting in an immune response.

⌚ Efficacy :	Phase III	100% (vs severe cases*)
	Phase III	95% (vs symptomatic cases*)
	Qatar study	75% (vs B.1.351 "SA" variant)

⌚ Dosing : 0.3mL - 2 doses - 21 days apart

▣ Storage : -70°C - 6 months (-20°C - 2 weeks)
+2-8°C - 5 days

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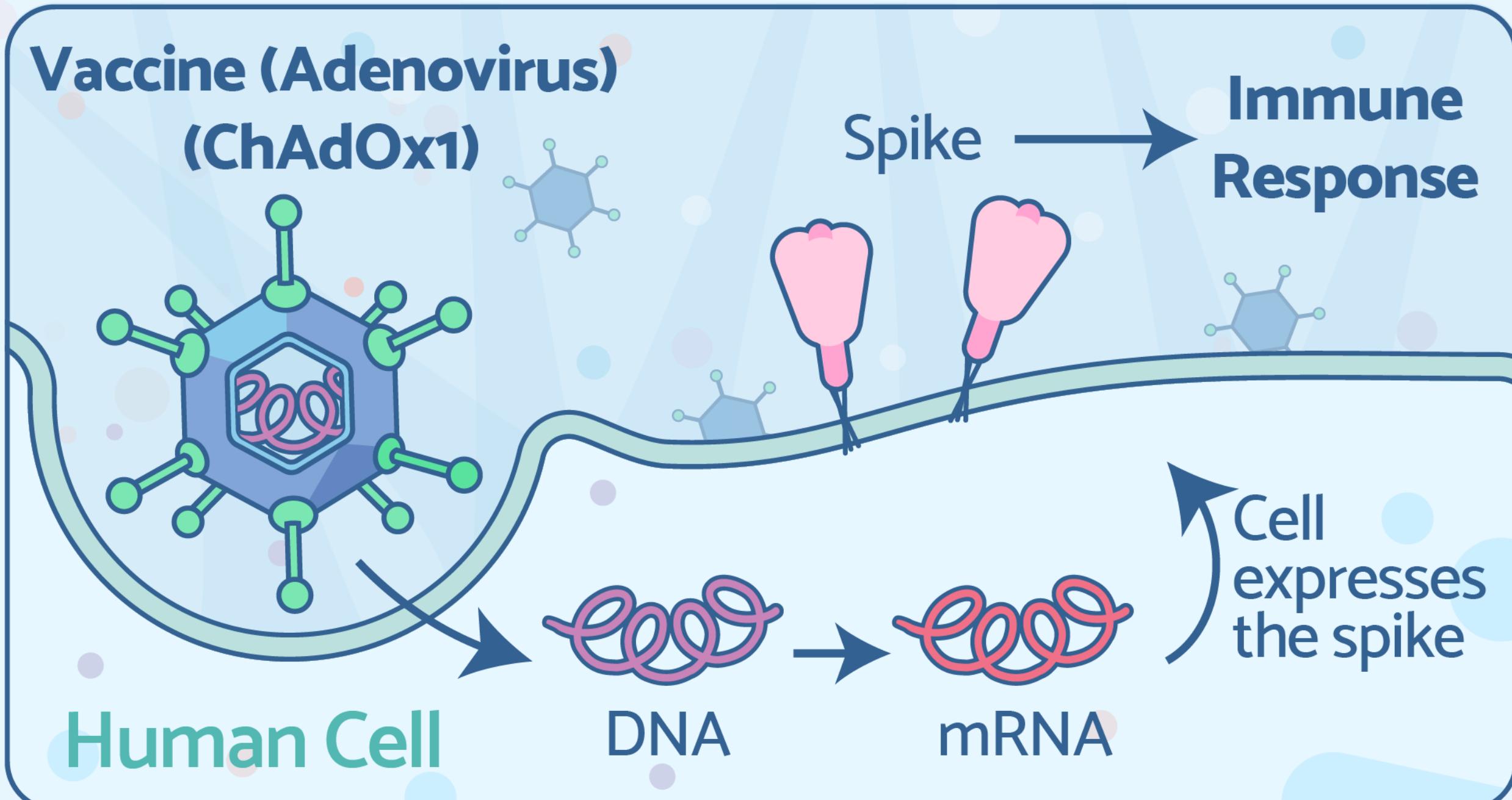
Last updated on 09/05/21

*international trial - 21 days after vaccination

AZD1222 / Vaxzevria (Covishield - India)

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Oxford/AstraZeneca



Viral Vector Vaccine

dsDNA encoding for the Spike protein is protected in a safe virus. The infected cell expresses the Spike protein which leads to an immune response.

Efficacy :	Phase III	100% (vs severe cases*)
	Phase III	82*%. (vs symptomatic cases*)
	Phase II	10%. (vs B.1.351 "SA" variant*)

Dosing : 0.5mL - 2 doses - *12 weeks apart

Storage : +2-8°C - 6 months

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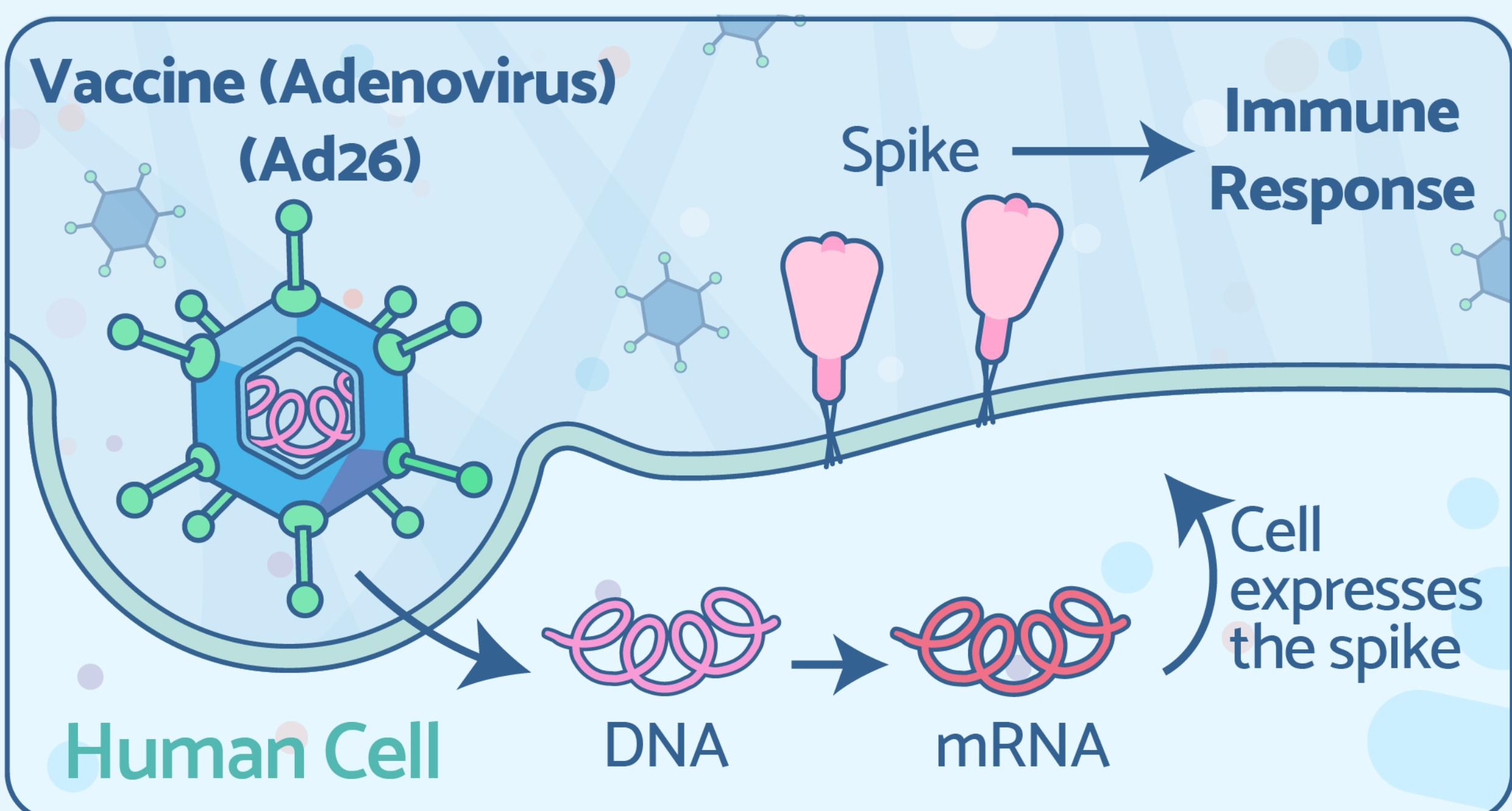
Last updated on 16/04/21

* when prime - boost doses injected at +12 weeks

*international trials

JNJ-78436735 / Ad26.COV2.S

Janssen / J&J



Viral Vector Vaccine

dsDNA encoding for the Spike protein is protected in a safe virus. The infected cell expresses the Spike protein which leads to an immune response.

Efficacy :	Phase III	100% (vs hospitalisation*)
	Phase III	74% (vs symptomatic to severe*)
	Phase III	64% (vs B.1.351 "SA" variant*)

Dosing : 0.5mL - 1 dose

Storage : +2-8°C - 3 months
-20°C - 2 years

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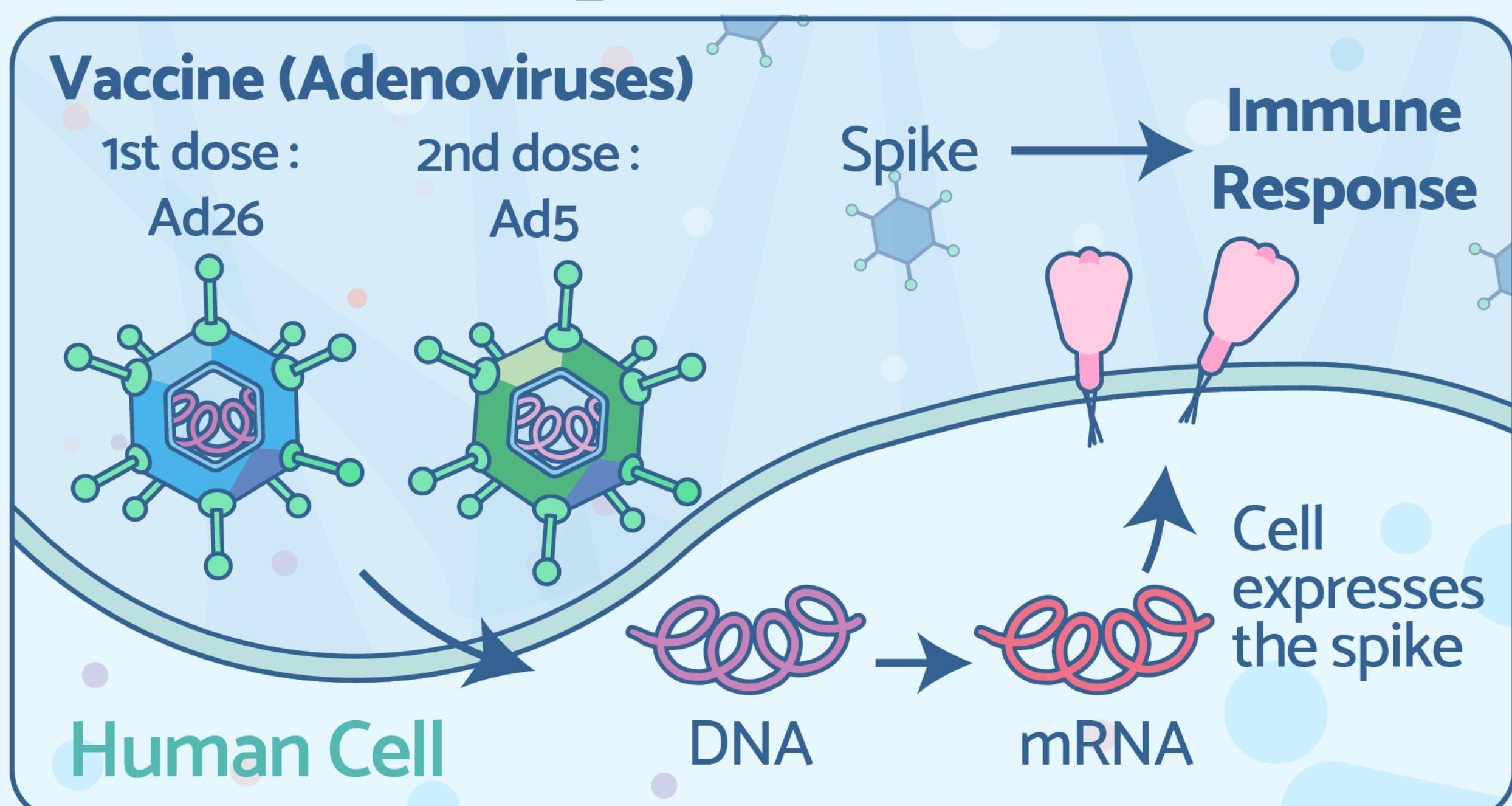
Last updated on 09/05/21

*US trial - 28 days after vaccination - CDC report

Sputnik V /Gam-Covid-Vac



Gamaleya



Viral Vector Vaccine

dsDNA encoding for the Spike protein is protected in a safe virus. The infected cell expresses the Spike protein which leads to an immune response.

 **Efficacy :** Phase III **100%** (vs severe cases*)
Phase III **92%** (vs confirmed cases*)

 **Dosing :** 0.5mL - 2 doses - 21 days apart

 **Storage :** +2-8°C - 6 months
-20°C - 2 years

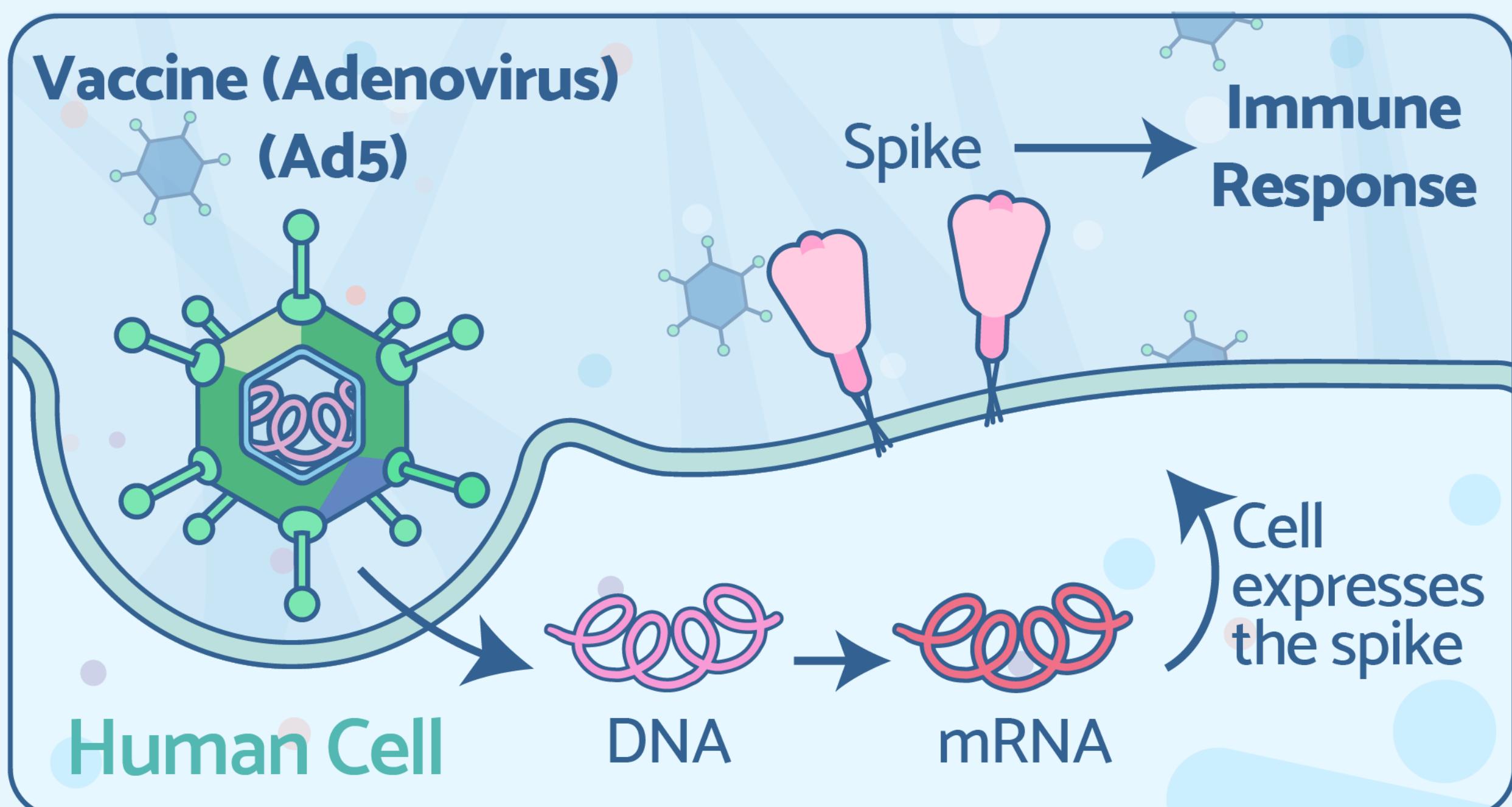
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Last updated on 16/04/21

* Russian trial - 21 days after vaccination

Convidencia / Ad5-nCoV

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CanSino Bio



Viral Vector Vaccine

dsDNA encoding for the Spike protein is protected in a safe virus. The infected cell expresses the Spike protein which leads to an immune response.

Efficacy : **90%** (vs severe cases*)
 65% (vs symptomatic cases*)

Dosing : 1 dose

Storage : +2-8°C

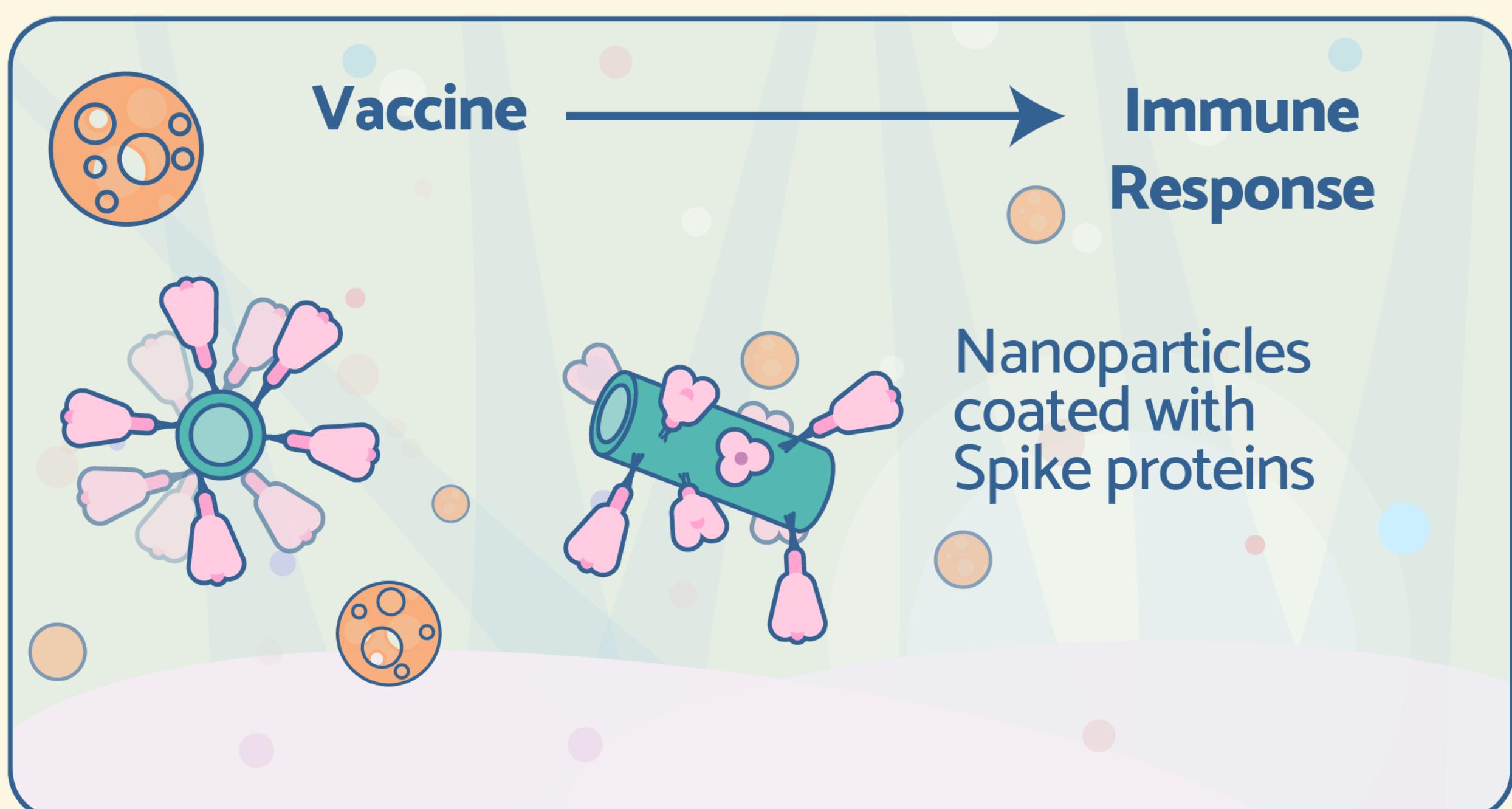
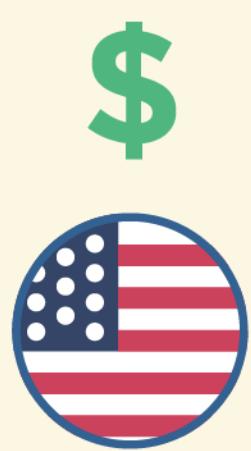
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Last updated on 16/04/21

* International trial - not published data

NVX-CoV2373

Novavax



Subunit Vaccine

Nanoparticles are coated with synthetic spike proteins. An additional element called adjuvant is added which allows to boost the immune reaction.

Efficacy :	Phase III	100% (vs severe cases)
	Phase III	89% (vs symptomatic cases*)
	Phase IIb	51% (B.1.351 “SA” variant)

Dosing : 0.5mL - 2 doses - 21 days apart

Storage : +2-8°C - 6 months
-20°C for 2 years

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Last updated on 06/05/21

* average. 96% against the “original” strain (D614G)

BBIBP-CorV

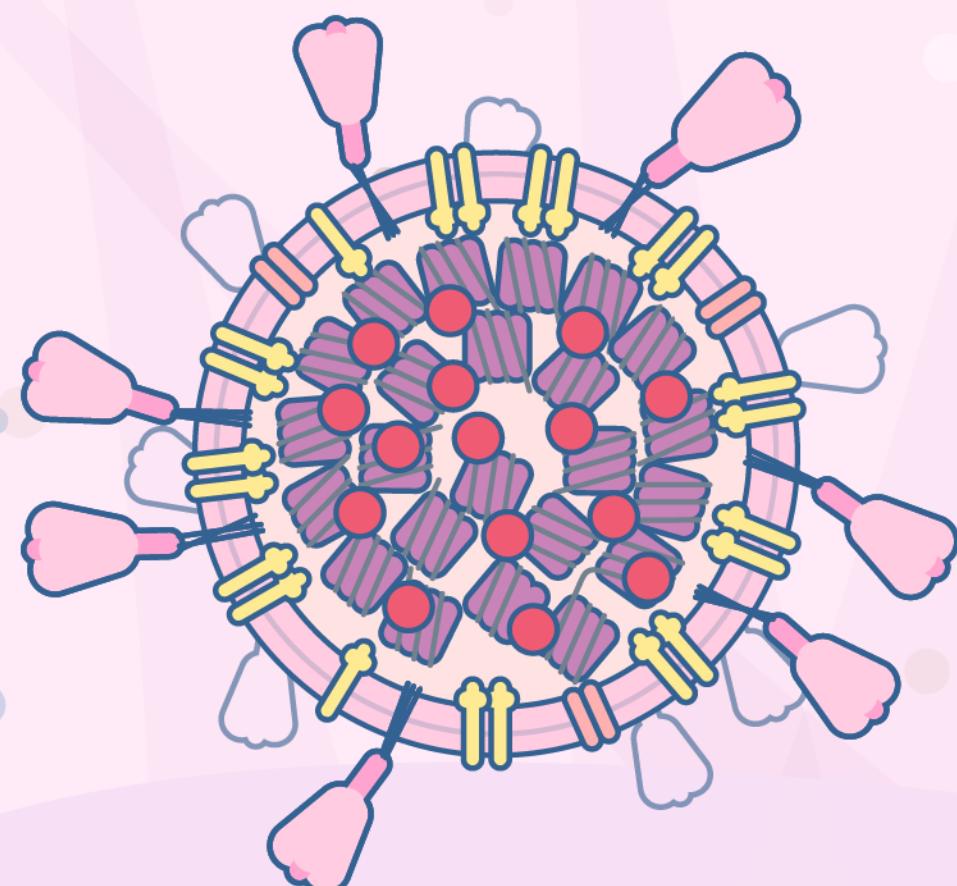
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Sinopharm



Vaccine

Immune Response



Inactivated Coronavirus



Inactivated Virus Vaccine

SARS-CoV2 is chemically inactivated (with a chemical called beta-propiolactone) so it cannot replicate but all the proteins remain intact.

🎯 **Efficacy :**  **78%** (vs hospitalisation*)
 **78%** (overall efficacy*)

☐ **Dosing :** 2 doses - 21 days apart

☒ **Storage :** +2-8°C

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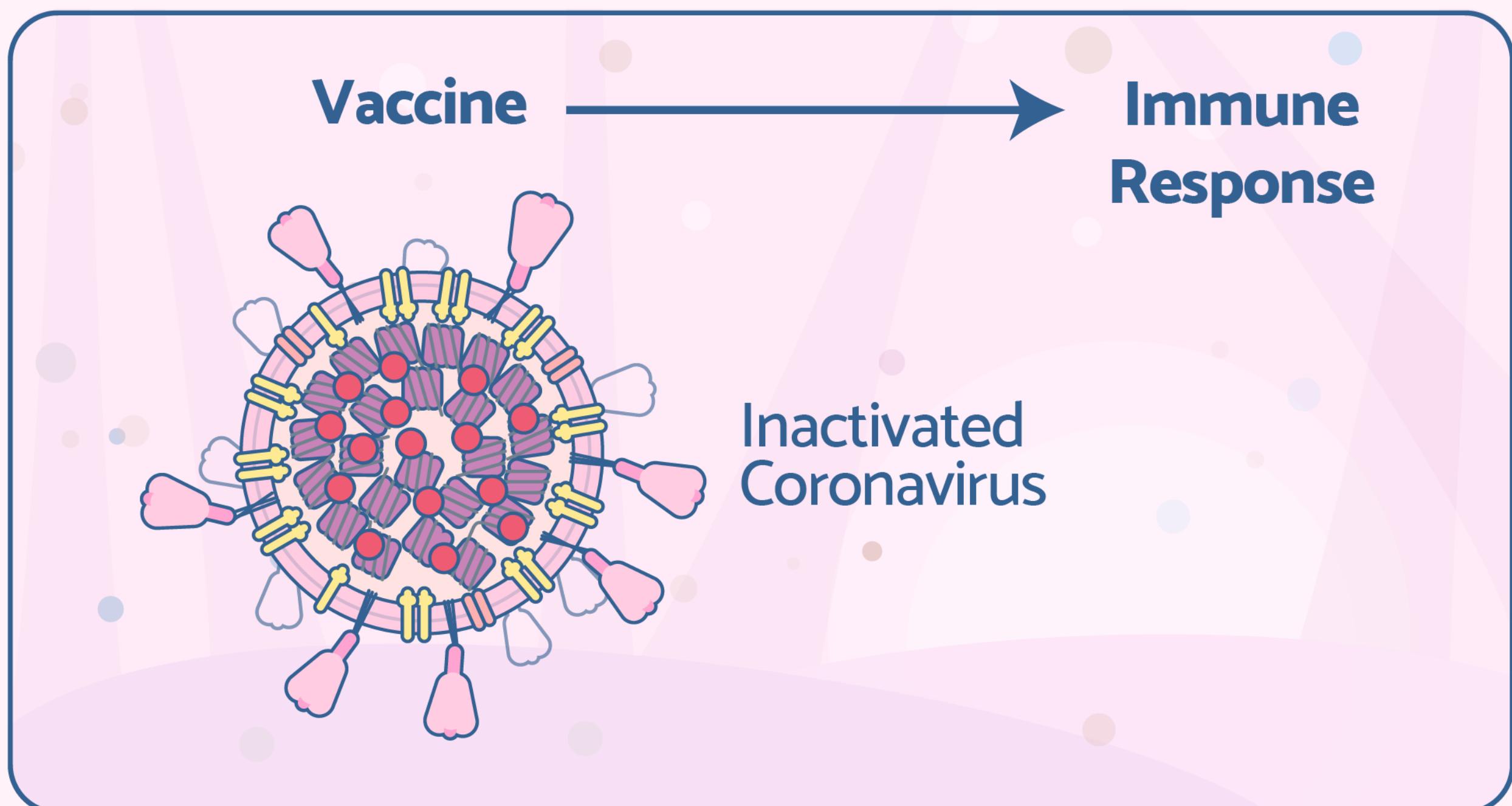
Last updated on 08/09/21

* International trial - WHO Report

CoronaVac

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SinoVac



Inactivated Virus Vaccine

SARS-CoV2 is chemically inactivated (with a chemical called beta-propiolactone) so it cannot replicate but all the proteins remain intact.

Efficacy : 100% (vs severe cases*)
 83% (vs symptomatic cases*)

Dosing : 2 doses - 14 days apart

Storage : +2-8°C

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Last updated on 16/04/21

* Unpublished Phase III results from Turkey

BBV152 / Covaxin

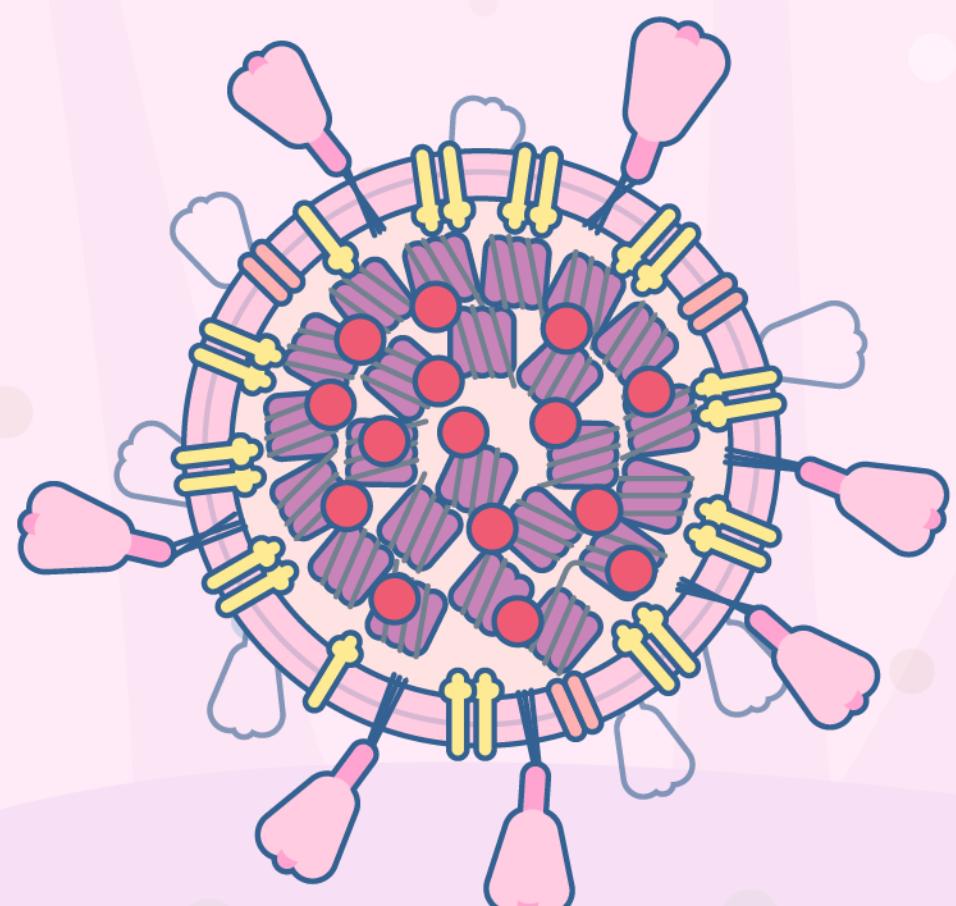
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Bharat Biotech



Vaccine

Immune Response



Inactivated Coronavirus



Inactivated Virus Vaccine

SARS-CoV2 is chemically inactivated (with a chemical called beta-propiolactone) so it cannot replicate but all the proteins remain intact.

🎯 **Efficacy :** Phase III **81%.** (vs symptomatic cases*)

▢ **Dosing :** 2 doses - 28 days apart

▢ **Storage :** +2-8°C

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Last updated on 16/04/21

* Indian trial - not published data