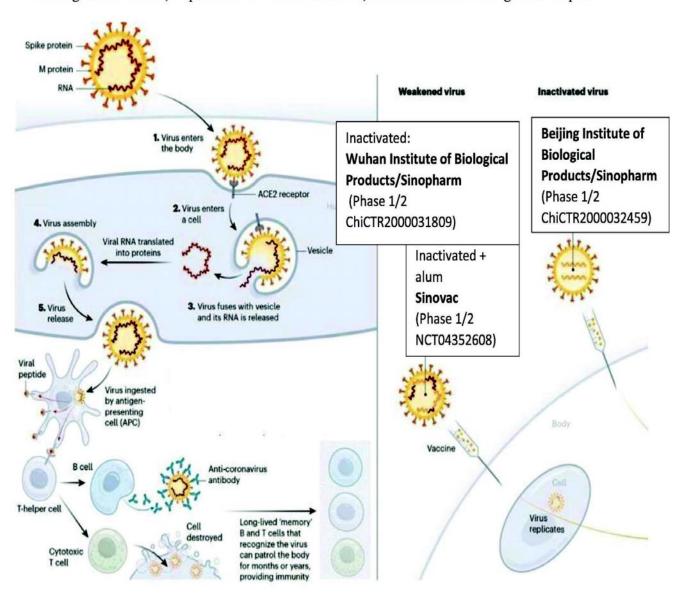
Vaccines of Covid-19

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DNA plasmid vaccine with electroporation Inovio Pharmaceuticals (Phase 1 NCT04336410)

electroporation creates pores in membranes to increase uptake of DNA into a cell proteins

Electroporation

Coronavirus spike gene

RNA vaccine

RNA is often encased in a lipid coat so it can enter cells

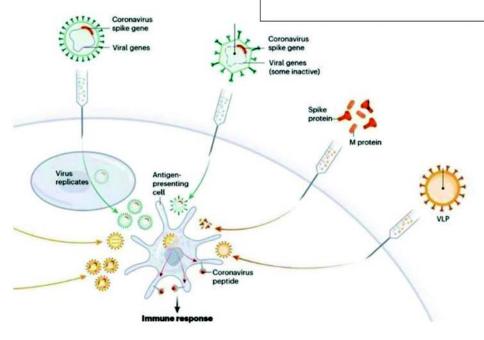
RNA is often encased in a lipid coat so it can enter cells

RNA 3 LNP-mRNAs BioNTech/Fosun Pharma/Pfizer (Phase 1/2 2020-001038-36)

RNA LNP encapsulated mRNA Moderna/NIAID Phase 2 (IND submission) Phase 1 NCT04283461 NonReplicating Viral Vector Adenovirus Type 5 Vector

CanSino Biological Inc./Beijing Institute of Biotechnology (Phase 2 ChiCTR2000031781 Phase 1 ChiCTR2000030906)

NonReplicating Viral Vector ChAdOx1 University of Oxford (Phase 1/2 NCT04324606)



Vaccines in clinical evaluation

Platform	Type of candidate vaccine	Developer	Current stage of clinical evaluation
Non- Replicating Viral Vector	Adenovirus Type 5 Vector	CanSino Biological Inc./Beijing Institute of Biotechnology	Phase 2
RNA	LNP- encapsulated mRNA	Moderna/NIAID	Phase 2 (IND submission) Phase 1 NCT04283461
Inactivated	Inactivated	Wuhan Institute of Biological Products/Sinopharm	Phase 1/2 ChiCTR2000031809
Inactivated	Inactivated	Beijing Institute of Biological Products/Sinopharm	Phase 1/2 ChiCTR2000032459
Inactivated	Inactivated + alum	Sinovac	Phase 1/2 NCT04352608
Non- Replicating Viral Vector	ChAdOx1	University of Oxford	Phase 1/2 NCT04324606
RNA	3 LNP-mRNAs	BioNTech/Fosun Pharma/Pfizer	Phase 1/2 2020-001038-36
DNA	DNA plasmid vaccine with electroporation	Inovio Pharmaceuticals	Phase 1 NCT04336410