

Sanofi Pasteur Sars-CoV – insect cells

<https://www.hhs.gov/about/news/2020/02/18/hhs-engages-sanofis-recombinant-technology-for-2019-novel-coronavirus-vaccine.html>

And

<https://www.precisionvaccinations.com/sanofi-pasteur%20will-deploy-its-recombinant-dna-platform-produce-recombinant-2019-novel-coronavirus>

Sanofi Partners with GSK

Insect cells and AS03 adjuvant

<https://www.wsj.com/articles/glaxosmithkline-sanofi-team-up-for-coronavirus-vaccine-11586875480?mod=lead> feature below a post

Codagenix and Serum Institute

CDX-CoV – Uses Vero Cells

<https://patents.google.com/patent/US20190233476A1/en?assignee=codagenix&oq=codagenix>

Symvivo

Uses e-Coli and Bifidobacterium

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetacgi/html%2FPTO%2Fsearch-bool.html&r=2&f=G&l=50&co1=AND&d=PTXT&s1=symvivo&OS=symvivo&RS=symvivo>

JPII Medical Research Inst. And CET (Cellular Engineering Technology)

Uses stem cell from postnatal placental tissue

<https://www.jp2mri.org/>

Sinovac Biotech

PiCoVacc – Uses Vero Cells

<https://www.news-medical.net/news/20200421/PiCoVacc-vaccine-candidate-for-COVID-19-effective-in-animal-trials.aspx>

UPDATE - HEK cells used to test final product:

https://science.sciencemag.org/content/sci/suppl/2020/05/05/science.abc1932.DC1/abc1932_Gao_SM.pdf

Merck and IAVI

Using Merck's Ervebo (Ebola Vaccine) Platform

Uses Vero cells

<https://www.businesswire.com/news/home/20200526005274/en/>

The University of Oxford

Vaccine candidate: ChAdOx1 and AZD1222

Uses HEK-293 cells and MRC-5 cells

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5516308/>

And

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3396660/>

And partnership with Merck Germany:

<https://www.prnewswire.com/in/news-releases/merck-supports-jenner-institute-to-reach-first-milestone-in-covid-19-vaccine-manufacturing-891225678.html>

With AstraZeneca AZD1222 – HALTED DUE TO ADVERSE REACTIONS IN TRIALS

<https://www.astrazeneca.com/content/astraz/media-centre/press-releases/2020/astrazeneca-and-oxford-university-announce-landmark-agreement-for-covid-19-vaccine.html>

And

<https://www.bitchute.com/video/AmUWT3xEZt7F/>

CanSino Biologics

Vaccine candidate: Ad5-nCoV

<http://www.cansinotech.com/html/1///179/180/408.html>

Using HEK 293 cells (See page 25)

http://www.jshealth.com/jgz/zjg/ymlcpjs/ymlcpjs_gzdt/201612/W020161214426550507006.pdf

University of Pittsburgh

Using HEK-293

<https://pittsburgh.cbslocal.com/2020/04/02/university-of-pittsburgh-medical-school-coronavirus-potential-vaccine-unveiled/>

Linked in the article: Materials and Methods

[https://www.thelancet.com/pdfs/journals/ebiom/PIIS2352-3964\(20\)30118-3.pdf](https://www.thelancet.com/pdfs/journals/ebiom/PIIS2352-3964(20)30118-3.pdf)

Massachusetts Eye and Ear

Using HEK-293 AAV Covid Adenovirus vector

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetacgi/html%2FPTO%2Fsearch-bool.html&r=12&f=G&l=50&co1=AND&d=PTXT&s1=Vandenbergh&OS=Vandenbergh&RS=Vandenbergh>

Regeneron – Sanofi

Treatment for Covid-19

Kevzara – Uses Blood donor and Chinese

Hamster Ovary (CHO cells

Package insert:

<http://products.sanofi.us/Kevzara/Kevzara.pdf>

And Patent:

<https://patents.google.com/patent/US8080248B2/en>

Athersys – Multistem - Treatment

Uses Bone Marrow Adult Stem Cells

<https://seekingalpha.com/article/4332788-athersys-now-in-play-for-covidminus-19-fda-fast-tracked-therapy-for-ards>

BioNTech and Pfizer

Uses K562 cells in protein expression;

Patent No. 10,669,322

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahhtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=10,669,322.PN.&OS=PN/10,669,322&RS=PN/10,669,322>

NOTE: Tested on HEK-293; not in the product

<https://www.biorxiv.org/content/10.1101/2020.09.08.280818v1.full.pdf>

Institute of Microbiology, Chinese Academy of Sciences, Zhifei Longcom

RBD-Dimer Uses Chinese Hamster Ovary cells

<https://theprint.in/health/cansino-moderna-novavax-a-list-of-covid-vaccines-under-clinical-trials-across-the-world/454051/>

Medicago/GSK/Dynavax

Uses VLPs produced in plant cells (CoVLP)

<https://www.ctvnews.ca/health/coronavirus/the-hunt-for-a-vaccine-canadian-company-begins-human-testing-of-covid-19-candidate-1.5022960>

And with GSK adjuvant

<https://www.medicago.com/en/newsroom/gsk-and-medicago-announce-collaboration-to-develop-a-novel-adjuvanted-covid-19-candidate-vaccine/>

Curevac

mRNA uses patients muscle cells to build antibody; imitates the natural viral infection and activates our own immune defense system.

<https://www.curevac.com/covid-19>

Regeneron

Antibody Treatment for Covid-19

REGN-CoV2 – Uses Blood donor and Chinese

Hamster Ovary (CHO) in the product

Used HEK-293 to develop Spike Protein and in testing

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahhtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=10,787,501.PN.&OS=PN/10,787,501&RS=PN/10,787,501>

And

https://science.sciencemag.org/content/sci/suppl/2020/06/15/science.abd0831.DC1/abd0831_Baum_SM.pdf

Inovio Pharmaceuticals

Vaccine candidate: INO-4800

Uses HEK-293 cells in MERS-HCoV Platform

Patent no. 10,548,971 Feb 4, 2020

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahhtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=10,548,971.PN.&OS=PN/10,548,971&RS=PN/10,548,971>

Altimune

Based on intranasal vaccine proprietary technology; Uses PER.C6

<https://www.globenewswire.com/news-release/2020/02/28/1992600/0/en/Altimune-Completes-First-Development-Milestone-Toward-a-Single-Dose-Intranasal-COVID-19-Vaccine.html>

And Patent:

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahhtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=10,183,069.PN.&OS=PN/10,183,069&RS=PN/10,183,069>

Vaxart VXA-CoV2-1

AD5 vector patent – HEK-293

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahhtml%2FPTO%2Fsearch-bool.html&r=9&f=G&l=50&co1=AND&d=PTXT&s1=vaxart&OS=vaxart&RS=vaxart>