

Covid-19 Vaccines and Treatments in Development - Updated May 25, 2020

Yellow – Morally Produced

AVM Biotech – AVM-0703

Treatment/Preventative

Steroid supercharge patient immune system

Steroid supercharges immune system, targeting T-cells, NKT (Natural Killer T) cells which attack and kill Covid-19 virus. www.avmbiotech.com

Israel – Pluristem

Using placenta donated from newborn babies

<https://www.pluristem.com/the-placenta-difference/>
<https://www.jpost.com/health-science/israeli-cell-therapy-to-treat-acute-covid-19-patients-prevent-arids-621016>

BCG Vaccine: No cells involved

<https://www.fda.gov/media/78331/download>
<https://www.tribuneindia.com/news/nation/bcg-vaccine-to-be-tested-in-covid-19-battle-71090>

British American Tobacco (BAT)

Tobacco company in Australia – morally produced using tobacco leaves.

<https://www.telegraph.co.uk/business/2020/04/01/cigarette-maker-claims-coronavirus-vaccine-breakthrough/>

Novavax – NVX-CoV2373

<https://ir.novavax.com/news-releases/news-release-details/novavax-identifies-coronavirus-vaccine-candidate-accelerates>

Uses Insect cells:

<https://www.novavax.com/page/8/vaccine-technology>

Matrix uses Sapaonin:

<https://www.novavax.com/page/10/matrix-m-adjvant-technology>

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-arids>

Sorrento Therapeutics

STI-6991 is an I-Cell™ COVID-19 cellular vaccine made of K562 cells expressing membrane-bound S1 protein of the SARS-CoV-2 virus

K562 cells – from 53 year old female cancer patient

<https://finance.yahoo.com/news/sorrento-launches-novel-cell-covid-140059499.html>

And

<https://www.sciencedirect.com/science/article/pii/S2590098620300130?via%3Dihub>

Red – Uses Aborted Fetal Cells

Moderna

Vaccine candidate: mRNA-1273 Using HEK 293 cells Spike S Protein in Development of Vaccine

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=2&u=%2Fmetahtml%2FPTO%2Fsearch-bool.html&r=62&f=G&l=50&col=AND&d=PTXT&s1=moderna&OS=moderna&RS=moderna>

And

<https://www.biocentury.com/article/304254/moderna-novavax-among-biotechs-working-on-novel-virus-but-vaccine-at-least-a-year-out>

And

<https://science.sciencemag.org/content/367/6483/1260.full>

Johnson & Johnson/Janssen Tech.

Ad-Vac – uses aborted fetal PER C6

<https://www.jnj.com/johnson-johnson-announces-a-lead-vaccine-candidate-for-covid-19-landmark-new-partnership-with-u-s-department-of-health-human-services-and-commitment-to-supply-one-billion-vaccines-worldwide-for-emergency-pandemic-use>

And

<https://www.janssen.com/infectious-diseases-and-vaccines/patented-technologies>

And

Johnson & Johnson/Emergent Biosolutions

[https://investors.emergentbiosolutions.com/news-releases/news-release-details/emergent-biosolutions-signs-agreement-be-us-manufacturing?field_nir_news_date_value\[min\]=](https://investors.emergentbiosolutions.com/news-releases/news-release-details/emergent-biosolutions-signs-agreement-be-us-manufacturing?field_nir_news_date_value[min]=)

Inovio Pharmaceuticals

Vaccine candidate: INO-4800

Uses HEK-293 cells

Based on current MERS-HCoV Platform

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

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fmetahtml%2FPTO%2Fsearch-bool.html&r=5&f=G&l=50&col=AND&d=PTXT&s1=Inovio&OS=Inovio&RS=Inovio>

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

Altimune

CD4+ and CD8+ T Cells and fluoropeptide

<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:

<https://patents.google.com/patent/US10155049B2/en?assignee=altimmune&oq=altimmune+>

Codagenix and Serum Institute

CDX-CoV – Uses Vero Cells

<https://patents.google.com/patent/US20190233476A1/en?assignee=codagenix&oq=codagenix>
[0144] Materials and Methods

Symvivo

Uses e-Coli and Bifidobacterium

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

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

Uses an immortalized adult 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>

The University of Oxford

Vaccine candidate: ChAdOx1 and AZD 1222

Uses HEK-293 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>

And partnership with Astra Zeneca AZD 1222

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

And vaccine name change:

<https://www.precisionvaccinations.com/vaccines/azd1222-sars-cov-2-vaccine>

CanSino Biologics

Vaccine candidate: Ad5-nCoV

<http://www.cansinotech.com/homes/article/show/56/153.html>

Using HEK 293 cells (See page 25)

http://www.jshealth.com/jgzl/zzjg/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 document 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=%2Fmetahtml%2FPTO%2Fsearch-bool.html&r=12&f=G&l=50&col=AND&d=PTXT&s1=Vandenbergh&OS=Vandenbergh&RS=Vandenbergh>