Covid-19 Vaccines and Treatments in Development - Updated July 24, 2020

**Yellow – Morally Produced**

**AVM Biotech – AVM-0703**
Treatment/Preventative
Steroid supercharge patient immune system
Steroid supercharges immune system, targeting T-cells, NK (Natural Killer T) cells which attack and kill Covid-19 virus. [www.avmbiotech.com](http://www.avmbiotech.com)

**Israel – Pluristem**
Using placenta donated from newborn babies
[https://www.pluristem.com/the-placenta-difference/](https://www.pluristem.com/the-placenta-difference/)

**BCG Vaccine: No cells involved**
[https://www.fda.gov/media/78331/download](https://www.fda.gov/media/78331/download)

**British American Tobacco (BAT)**
Tobacco company in Australia – morally produced using tobacco leaves.
[https://www.telegraph.co.uk/business/2020/04/01/cigarettemaker-claims-coronavirus-vaccine-breakthrough/](https://www.telegraph.co.uk/business/2020/04/01/cigarettemaker-claims-coronavirus-vaccine-breakthrough/)

**Novavax – NVX-CoV2373**
Uses Insect cells:
[https://www.novavax.com/page/8/vaccine-technology](https://www.novavax.com/page/8/vaccine-technology)
Matrix uses Sapaonin:
[https://www.novavax.com/page/10/matrix-m-adjuvant-technology](https://www.novavax.com/page/10/matrix-m-adjuvant-technology)

**Athersys – Multistem - Treatment**
Uses Bone Marrow Adult Stem Cells

**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
And

**Red – Uses Aborted Fetal Cells**

**Moderna And NIAID**
Vaccine candidate: mRNA-1273
Using HEK 293 and MRC-5 in Development and Testing
And
And
[https://www.science.sciencemag.org/content/367/6483/1260.full](https://www.science.sciencemag.org/content/367/6483/1260.full)

**Johnson & Johnson/Janssen Tech.**
Ad-Vac – uses aborted fetal PER C6
And
And

**Inovio Pharmaceuticals**
Vaccine candidate: INO-4800
Uses HEK-293 cells
Based on current MERS-HCoV Platform
Patent no. 10,548,971 Feb 4, 2020
Sanofi Pasteur Sars-CoV – insect cells
And

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_pos1

Codagenix and Serum Institute
CDX-CoV – Uses Vero Cells

Symvivo
Uses e-Coli and Bifidobacterium

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

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:

The University of Oxford
Vaccine candidate: ChAdOx1 and AZD1222
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:
And partnership with AstraZeneca AZD1222
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/56153.html
Using HEK 293 cells (See page 25)

University of Pittsburgh
Using HEK-293
Linked in the article: Materials and Methods

Altimmune
Based on intranasal vaccine proprietary technology; Uses PER.C6
And Patent:
**Merck and IAVI**
Using Merck’s Ervebo (Ebola Vaccine) Platform
Uses Vero cells

**BioNTech and Pfizer**
Uses K562 cells in protein expression

**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

**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

**Massachusetts Eye and Ear**
Using HEK-293 AAV Covid Adenovirus vector

**Lindsley F. Kimball Research Institute, New York Blood Center and Beijing Institute of Microbiology and Epidemiology**
Uses HEK-293 cells
https://www.nature.com/articles/s41423-020-0400-4#Sec1