بنام خداوند نیامده، خسک در کنار راه‌نگاران بگذرد.

[Arabic text]
COVID-19 vaccines platforms
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Platforms for SARS-CoV-2 vaccines in development

- **Virus**
  - Inactivated
  - Weakened

- **Viral vector**
  - Replicating
  - Non-replicating

- **Nucleic acid**
  - DNA
  - RNA

- **Protein-based**
  - Protein subunit
  - Virus-like particles

Number of vaccines in development
COVID-19 VACCINES IN DEVELOPMENT

184 vaccines are being explored in lab experiments and animals
35 vaccines are undergoing safety tests in healthy young individuals
34 vaccines are being tested in broader groups of people
28 vaccines are in large international trials to test their impact on COVID-19
17 vaccines are currently being offered to the general population
8 vaccines are being monitored in the wider population after being approved

PRE-CLINICAL PHASE 1 PHASE 2 PHASE 3 IN USE PHASE 4

- Nucleic acid
- Viral vector
- Protein-based
- Whole virus
- Abandoned
COVID-19 vaccines in clinical development around the world

PHASE 4

VIRAL VECTOR VACCINE
JANSSEN/JOHNSON & JOHNSON

RNA VACCINE
MODERN

RNA VACCINE
MODERN/NATIONAL INSTITUTE OF ALLERGIES AND INFECTION DISEASES

VIRAL VECTOR VACCINE
ASTRAZENECA/UNIVERSITY OF OXFORD

RNA VACCINE
PFIZER/BIONTECH

INACTIVATED VACCINE
BEIJING INSTITUTE OF BIOLOGICAL PRODUCTS

INACTIVATED VACCINE
SINOVAC

VIRAL VECTOR VACCINE
CANSINO BIOLIGICS

Preclinical: Testing in animals
Phase 1: Initial testing for safety and identifying dosage
Phase 2: Testing for effectiveness and further safety testing
Phase 3: Confirm and assess effectiveness
In use: Currently being offered to the general population
Phase 4: Monitor and assess effectiveness, and look for side effects
COVID-19 vaccines in clinical development around the world

Pre-clinical → Testing in animals
Phase 1 → Initial testing for safety and identifying dosage
Phase 2 → Testing for effectiveness and further safety testing
Phase 3 → Confirm and assess effectiveness
In use → Are currently being offered to the general population
Phase 4 → Monitor and assess effectiveness, and look for side effects

IN USE
COVID-19 vaccines in clinical development around the world

- **Pre-clinical**: Testing in animals
- **Phase 1**: Initial testing for safety and identifying dosage
- **Phase 2**: Testing for effectiveness and further safety testing
- **Phase 3**: Confirm and assess effectiveness
- **In use**: Are currently being offered to the general population
- **Phase 4**: Monitor and assess effectiveness, and look for side effects

Locations:
- **RNA Vaccine**: Lausanne, Switzerland
- **Protein Subunit Vaccine**: Instituto Finlay de Vacunas, Cuba
- **RNA Vaccine**: Sandoz Pasteur and Translate Bio
- **Protein Subunit Vaccine**: Razi Vaccine and Serum Research Institute
- **Replicating Viral Vector Vaccine**: Beijing Wantai Biological Pharmacy
- **Protein Subunit Vaccine**: Guangdong Provincial Center for Disease Control and Prevention
- **Protein Subunit Vaccine**: Medigen
- **Viral Vector Vaccine**: Institute of Vaccines and Medical Biologicals
- **Protein Subunit Vaccine**: Vacrine

Date: 07.07.21
COVID-19 vaccines in clinical development around the world

- **Phase 1/2**: Initial testing for safety and identifying dosage
- **Phase 3**: Testing for effectiveness and further safety testing
- **Phase 4**: Confirm and assess effectiveness
- **In use**: Currently being offered to the general population
- **Monitor and assess effectiveness, and look for side effects**
COVID-19 vaccines in clinical development around the world

Pre-clinical: Testing in animals
Phase 1: Initial testing for safety and identifying dosage
Phase 2: Testing for effectiveness and further safety testing
Phase 3: Confirm and assess effectiveness
In use: Are currently being offered to the general population
Phase 4: Monitor and assess effectiveness, and look for side effects
Adenovirus vector

- AstraZeneca
- Sputnik V
- Janssen
Inactivated virus

- Sinopharm
- Coviran Barkat
- Fakhravac
- Covaxin (Bharat)
Protein subunit

PastoCovac (Soberana)
Razi Covpars
Spikogen
Noora
Novavax
RNA vaccine

- Pfizer
- Moderna
- ReNAP