

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

11 Jun 2026

### **A phase III, Randomized, Two-armed, Double-blind, Placebo controlled trial to evaluate efficacy and safety of an adjuvanted recombinant SARS-CoV-2 spike (S) protein subunit vaccine (SpikoGen®) produced by CinnaGen Co. (Two doses of 25µg with dosing interval of 21 days)**

#### **Protocol summary**

##### **Study aim**

To evaluate the incidence of COVID-19, 2 weeks after the 2nd dose

##### **Design**

A phase III, randomized, two-armed, double-blind, placebo controlled clinical trial with 16876 subjects. Stratified randomization by R-CRAN-version 4.0.1

##### **Settings and conduct**

Randomized, two-armed, double-blind, placebo controlled clinical trial in Espinas Palace Hotel, Tehran

##### **Participants/Inclusion and exclusion criteria**

50 > age ≥ 18 years who are able to comply with study protocol. Stable medical condition. Women who are not pregnant/breastfeeding. Exclusion: Subjects with active infection with signs of COVID-19. Subjects with  $T \geq 38^{\circ}\text{C}$  at screening/72hr prior. Progressive/severe neurological disorder, dementia, stroke, seizures, history of GBS. High-risk subjects who are prioritized for the national vaccination program, those are treated with immunosuppressive/cytotoxic drugs/systemic corticosteroids at doses  $\geq 10\text{mg}$  daily of prednisolone/equivalent doses of other corticosteroids more than 14 days. People with history of SARs to the vaccine. Subjects in clinical trials within 30 days before screening until end of the study who have previously vaccinated against COVID-19. They received other authorized vaccines within 28 days prior to the screening/intend to receive vaccine up to 2 weeks after second dose. People with bleeding disorder who received/intend to receive any blood/blood products 90 days or donated  $\geq 450\text{ml}$  28 days prior to screening. Subjects given vaccination within 2 months after participating in the study, according to the national immunization/Subjects with ESRD/dawn syndrome/BMI  $\geq 40$ /CF/COPD/PAH/uncontrolled (asthma/HTN/DM)

##### **Intervention groups**

1IM injection of 25 µg subunit vaccine with Advax-CpG adjuvant on day 0 and 21. Placebo: 1IM injection of normal saline (0.9% saline) on day 0 and 21

##### **Main outcome variables**

Evaluation of Covid-19 disease 14 days after the 2nd dose. Evaluation of severe cases of COVID-19 disease 14 days after the 2nd dose

#### **General information**

##### **Reason for update**

##### **Acronym**

##### **IRCT registration information**

IRCT registration number: **IRCT20150303021315N24**  
Registration date: **2021-08-03, 1400/05/12**  
Registration timing: **prospective**

Last update: **2021-08-03, 1400/05/12**

Update count: **0**

##### **Registration date**

2021-08-03, 1400/05/12

##### **Registrant information**

##### **Name**

Nassim Anjidani

##### **Name of organization / entity**

Orchid Pharmed

##### **Country**

Iran (Islamic Republic of)

##### **Phone**

+98 21 4347 3000

##### **Email address**

amini@orchidpharmed.com

##### **Recruitment status**

**Recruitment complete**

##### **Funding source**

**Expected recruitment start date**

2021-08-04, 1400/05/13

**Expected recruitment end date**

2021-09-22, 1400/06/31

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

A phase III, Randomized, Two-armed, Double-blind, Placebo controlled trial to evaluate efficacy and safety of an adjuvanted recombinant SARS-CoV-2 spike (S) protein subunit vaccine (SpikoGen®) produced by CinnaGen Co. (Two doses of 25µg with dosing interval of 21 days)

**Public title**

Evaluation of efficacy and safety of SpikoGen® vaccine on adults to prevent COVID-19 disease

**Purpose**

Prevention

**Inclusion/Exclusion criteria****Inclusion criteria:**

Men or women 50 > age ≥ 18 Participants who are willing and able to comply with study requirements, including all scheduled visits, vaccinations and tests  
Healthy adults or adults with stable medical conditions  
Women eligible to participate in the study who are not pregnant or breastfeeding

**Exclusion criteria:**

Subjects with active infection with SARS-COV-2 signs at the screening visit  
Subjects with body temperature equal or more than 38 degrees centigrade, during 72 hours before screening visit or during the visit  
Subjects with any progressive or severe neurological disorder, including dementia, stroke, seizures, or a history of Guillain-Barre syndrome  
High-risk subjects who are prioritized for the national vaccination program, those are treated with immunosuppressive drugs or cytotoxic drugs, or systemic corticosteroids at doses ≥ 10 mg daily of prednisolone or equivalent doses of other corticosteroids more than 14 days  
Pregnant women, or breastfeeding mothers, or women who plan to become pregnant during the study  
Subjects who have a history of severe allergic reactions (e.g. anaphylaxis) to the study vaccine or any components of the vaccine or any other drugs  
Subjects who have received any other investigational product within 30 days prior to the screening visit or intend to participate in other clinical studies during this trial  
Subjects who have been vaccinated with other vaccines against the SARS-CoV-2 virus  
Subjects who received other authorized vaccines within 28 days prior to the screening visit in this study or intend to receive any vaccines up to 14 days after the second vaccination  
Subjects who have any known bleeding disorder or may have problems with the intramuscular injection according to the researcher's opinion  
Subjects who have received or intend to receive any blood / plasma or immunoglobulin products 90 days prior to the screening visit  
Subjects with special circumstances who, may increase the risk of

participating in the study or interfering with the evaluation of the primary endpoints of the study according to researcher's opinion  
Subjects who have donated ≥450 ml of blood or blood products 28 days prior to the screening visit  
Subjects who are given the priority of vaccination within 2 months after participating in the study, according to the national immunization program  
Subjects with ESRD  
Subjects with dawn syndrome  
Subjects with BMI ≥ 40  
Subjects with cystic fibrosis, COPD, PAH  
Subjects with uncontrolled asthma  
Subjects with uncontrolled hypertension  
Subjects with uncontrolled diabetes Mellitus

**Age**From **18 years** old to **50 years** old**Gender**

Both

**Phase**

3

**Groups that have been masked**

- Participant
- Care provider
- Investigator
- Outcome assessor

**Sample size**Target sample size: **16876****Randomization (investigator's opinion)**

Randomized

**Randomization description**

Eligible patients will be assigned to treatment using a stratified randomization by R-CRAN-version 4.0.1.  
Randomization will be stratified according to two factors: Age (Below the age of 40- equal or above the age of 40 - below 50)  
After randomization procedure, a code will be allocated to each patient that will be used as patient identifier throughout the study. The assigned code will be denoted by 4 initials (corresponding to the first two letters of first name, first two letters of surname) and 3 numbers (center code). Moreover, the described code is followed by study unique identification code consisting of first three letters of the generic name of the investigational product, i.e. VAC and five numbers (corresponding to the randomization number), e.g. ABCD001VAC-00001. Each vaccine syringe has a unique code that differs from the rest of the vaccines. The CRO is responsible for preparing the unique codes. Therefore, only the CRO knows each code for the vaccine (manufactured by CinnaGen) or placebo (0.9% normal saline). In case of enrollment, each subject will be given a randomization code and will be assigned to one of the groups. During each visit, a vaccine with a specific code will be given to the subject. The CRO will monitor how subjects are assigned to the treatment groups

**Blinding (investigator's opinion)**

Double blinded

**Blinding description**

The vaccine and the placebo have the same research label and are suitable for the vaccine boxes and syringes. The contents of the labels are based on EMA regulation. The SpikoGen® vaccine or placebo are packaged in the same way. Unique codes are printed on

the vaccine and placebo labels, and each vaccine is linked to the participant through this unique code. Participants and medical staff are not aware of the vaccine or placebo. The type of participants group and the type of vaccine they received will not be known for investigators and will be stored in opaque sealed envelopes at the center. Decoding or blind breaking, under special circumstances, is the responsibility of the DSMB Committee. Decoding for a participant is done by the investigator of the center, when all of the possibilities in the occurrence of the event are evaluated and rejected. The vaccine or the placebo is recognized as the most important factor in the occurrence of an event or management of its complications which lead to special treatment for the participant and a decision that is not possible without decoding.

**Placebo**

Used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Iran National Committee for Ethics in Biomedical Research.

**Street address**

Floor 13, Block A, Ministry of Health & Medical Education Headquarters, Between Zarafashan & South Falamak, Qods Town, Tehran, Iran.

**City**

Tehran

**Province**

Tehran

**Postal code**

1467664961

**Approval date**

2021-07-28, 1400/05/06

**Ethics committee reference number**

IR.NREC.1400.005

**Health conditions studied****1****Description of health condition studied**

COVID-19

**ICD-10 code**

U07.1

**ICD-10 code description**

COVID-19, virus identified

**Primary outcomes****1****Description**

Evaluation of COVID-19 incidence

**Timepoint**

14 days after the second dose

**Method of measurement**

Participants must have at least two of the following systemic symptoms: fever ( $38^{\circ}\text{C}$ ), chills, myalgia, headache, sore throat, nausea, vomiting, diarrhea, nasal discharge, new olfactory disorder, "or" the participant must have experienced at least one of the following respiratory signs and symptoms: cough, shortness of breath, clinical or radiographic evidence of pneumonia "and" at least one positive PCR test for SARS-CoV-2

**2****Description**

Evaluation of severe COVID-19 incidence

**Timepoint**

14 days after the second dose

**Method of measurement**

If the patient has any of the following symptoms, is classified as severe type of COVID-19: respiratory rate  $\geq 30$  per minute. Heart rate  $\geq 125$  per minute. Oxygen saturation  $\leq 93\%$  in ambient air. Respiratory failure or acute respiratory distress syndrome (ARDS) or (requires high-flow oxygen or non-invasive or mechanical ventilation or ECMO) Evidence of shock (systolic blood pressure  $< 90$  mm Hg, diastolic blood pressure  $< 60$  mm Hg) or the need for vasopressors). Acute renal, hepatic or neurological dysfunction. Hospitalization in the intensive care unit or death.

**Secondary outcomes****1****Description**

Occurrence of solicited adverse events

**Timepoint**

Up to 7 days after each dose

**Method of measurement**

Checkup, history checking and participants reports based on adverse event reporting system

**2****Description**

Occurrence of unsolicited adverse events.

**Timepoint**

Up to 28 days after each dose.

**Method of measurement**

Checkup, history checking and participants reports based on adverse event reporting system

**3****Description**

Occurrence of serious adverse events and suspected unexpected serious adverse events

**Timepoint**

within 6 months after the second dose

**Method of measurement**

Checkup, history checking and participants reports based on adverse event reporting system

## Intervention groups

### 1

**Description**

Intervention group: Injecting one dose of 1 ml solution of SpikoGen® vaccine containing recombinant SARS-CoV-2-S protein and Advax™ and CpG adjuvants in the non-dominant arm on days 0 and 21

**Category**

Prevention

### 2

**Description**

Control group: Injecting one dose of 1 ml placebo containing normal saline (0.9% NaCl solution) in non-dominant arm on days 0 and 21

**Category**

Placebo

## Recruitment centers

### 1

**Recruitment center****Name of recruitment center**

Espinashotel.com

**Full name of responsible person**

Payam Tabarsi- Masoud Mardani Dashti

**Street address**

Espinashotel.com, No.33 Alley, Abedi Street, Behroud Sq., Saadat Abad, Tehran, Iran

**City**

Tehran

**Province**

Tehran

**Postal code**

1981846911

**Phone**

+98 21 7567 5000

**Email**

reservation.p@espinashotel.com

## Sponsors / Funding sources

### 1

**Sponsor****Name of organization / entity**

CinnaGen Company

**Full name of responsible person**

Dr. Haleh Hamedifar

**Street address**

No.72, CinnaGen research and production Company. Simin Dasht Industrial Park, Karaj, Alborz, Iran

**City**

Karaj

**Province**

Tehran

**Postal code**

3165933155

**Phone**

+98 26 3667 0980

**Email**

cinnagen@cinnagen.com

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

CinnaGen Company

**Proportion provided by this source**

100

**Public or private sector**

Private

**Domestic or foreign origin**

Domestic

**Category of foreign source of funding**

empty

**Country of origin****Type of organization providing the funding**

Industry

## Person responsible for general inquiries

**Contact****Name of organization / entity**

Orchid Pharmed

**Full name of responsible person**

Nassim Anjidani

**Position**

Medical Department Manager

**Latest degree**

Medical doctor

**Other areas of specialty/work**

Medical Pharmacy

**Street address**

No 42. Attar sq, Attar st, Valiasr st, Vanak sq, Tehran, Iran

**City**

Tehran

**Province**

Tehran

**Postal code**

1994766411

**Phone**

+98 21 4347 3000

**Email**

anjidani.n@orchidpharmed.com

## Person responsible for scientific inquiries

**Contact**

**Name of organization / entity**  
Shahid Beheshti University of medical Sciences

**Full name of responsible person**  
Payam Tabarsi

**Position**  
Professor

**Latest degree**  
Specialist

**Other areas of specialty/work**  
Infectious diseases

**Street address**  
Masih Daneshvari Hospital, Darabad, Niavaran

**City**  
Tehran

**Province**  
Tehran

**Postal code**  
19569-44413

**Phone**  
+98 21 2712 3000

**Email**  
tabarsi@nritld.ac.ir

## Person responsible for updating data

### Contact

**Name of organization / entity**  
Orchid Pharmed

**Full name of responsible person**  
Nassim Anjidani

**Position**  
Medical Department Manager

**Latest degree**  
Medical doctor

**Other areas of specialty/work**  
Medical Pharmacy

**Street address**  
No 42. Attar sq, attar st, valiasr st, vanak sq, Tehran,  
Iran

**City**  
Tehran

**Province**  
Tehran

**Postal code**  
1994766411

**Phone**  
+98 21 4347 3000

**Email**  
Anjidani.n@orchidpharmed.com

## Sharing plan

### Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

### Study Protocol

Yes - There is a plan to make this available

### Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

### Informed Consent Form

Yes - There is a plan to make this available

### Clinical Study Report

Yes - There is a plan to make this available

### Analytic Code

Not applicable

### Data Dictionary

Not applicable

### Title and more details about the data/document

Participants' data will be available for regulatory and ethics committee for decisions.

### When the data will become available and for how long

Documents including study protocol and the results will be available to the public after the study ends.

### To whom data/document is available

The regulatory body and the ethics committee will have access to the study data. The monitoring team will have access to the study data during the conduct. DSMB will have access to the study data and results in predefined timelines and decides about the continuation of the study.

### Under which criteria data/document could be used

With the permission of the sponsor and the approval of regulatory

### From where data/document is obtainable

The study sponsor is responding to this request

### What processes are involved for a request to access data/document

The study sponsor is responding to this request

### Comments