



Clinical Trial Details (PDF Generation Date :- Wed, 07 Jun 2023 18:09:46 GMT)

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| <b>CTRI Number</b>   | CTRI/2020/11/029032 [Registered on: 10/11/2020] - <b>Trial Registered Prospectively</b>  |  |
| <b>Last Modified On</b>  | 13/01/2021   |  |
| <b>Post Graduate Thesis</b>  | No   |  |
| <b>Type of Trial</b>   | Interventional   |  |
| <b>Type of Study</b>   | Vaccine<br>Biological<br>Preventive  |  |
| <b>Study Design</b>  | Randomized, Parallel Group Trial   |  |
| <b>Public Title of Study</b>   | Biological E's novel Covid-19 vaccine of SARS-CoV-2 for protection against Covid-19 disease.   |  |
| <b>Scientific Title of Study</b>   | A prospective open label randomised phase-I seamlessly followed by phase-II study to assess the safety, reactogenicity and immunogenicity of Biological E's novel Covid-19 vaccine containing Receptor Binding Domain of SARS-CoV-2 for protection against Covid-19 disease when administered intramuscularly in a two dose schedule (0, 28D) to healthy volunteers. |  |
| <b>Secondary IDs if Any</b>  | <b>Secondary ID</b>  | <b>Identifier</b>  |
|  | BECT062/Covid-19-phase-I&II/CTP-01Ver: 1.1 dated:07.10.20  | Protocol Number  |
| <b>Details of Principal Investigator or overall Trial Coordinator (multi-center study)</b> | <b>Details of Principal Investigator</b>   |  |
|  | <b>Name</b>  | DrSubhash Thuluva  |
|  | <b>Designation</b>   | Vice President - Clinical Development  |
|  | <b>Affiliation</b>   | Biological E.Limited   |
|  | <b>Address</b>   | Clinical affairs & Pharmacovigilance Dept, 2nd floor, Road No.35, Jubilee Hills<br>Hyderabad<br>TELANGANA<br>500033<br>India |
|  | <b>Phone</b>   | 04071216248  |
|  | <b>Fax</b>   | 04027675309  |
|  | <b>Email</b>   | subhash.thuluva@biologicale.com  |
|  | <b>Details Contact Person (Scientific Query)</b>   |  |
|  | <b>Name</b>  | DrSubhash Thuluva  |
| <b>Designation</b>   | Vice President - Clinical Development  |  |
| <b>Affiliation</b>   | Biological E.Limited   |  |
| <b>Address</b>   | Clinical affairs & Pharmacovigilance Dept, 2nd floor, Road No.35, Jubilee Hills<br><br>TELANGANA<br>500033<br>India  |  |
| <b>Phone</b>   | 04071216248  |  |
| <b>Fax</b>   | 04027675309  |  |
| <b>Email</b>   | subhash.thuluva@biologicale.com  |  |
| <b>Details Contact Person (Public Query)</b>   | <b>Details Contact Person (Public Query)</b>   |  |
|  | <b>Name</b>  | DrTSA Kishore  |
|  | <b>Designation</b>   | Associate Vice President   |
|  | <b>Address</b>   | Clinical affairs & Pharmacovigilance Dept, 2nd floor, Road No.35, Jubilee Hills<br>Hyderabad                                 |



|              |                                |
|--------------|--------------------------------|
|              | TELANGANA<br>500033<br>India   |
| <b>Phone</b> | 04071216247                    |
| <b>Fax</b>   | 04027675309                    |
| <b>Email</b> | kishore.turaga@biologicale.com |

**Source of Monetary or Material Support**

| Source of Monetary or Material Support  |  |
|---|--|
| > Biological E.Limited, 18/1&3, Azamabad, Hyderabad - 500020, Telangana, India. |  |

**Primary Sponsor**

| Primary Sponsor Details |   |
|-------------------------|---|
| <b>Name</b>             | Biological ELimited                                     |
| <b>Address</b>          | 18/1&3, Azamabad, Hyderabad - 500020, Telangana, India. |
| <b>Type of Sponsor</b>  | Pharmaceutical industry-Indian                          |

**Details of Secondary Sponsor**

| Name | Address |
|------|---------|
| None | None    |

**Countries of Recruitment**

| List of Countries |
|-------------------|
| India             |

**Sites of Study**

| Name of Principal Investigator | Name of Site                            | Site Address   | Phone/Fax/Email                                     |
|--------------------------------|---|--|---|
| Dr Chandramani Singh           | All India Institute of Medical Sciences | Room No. 17<br>Department of<br>Community & Family<br>Medicine, Aurangabad<br>Road Phulwari Sharif,<br>Patna 801507.<br>Aurangabad<br>BIHAR    | 09931733280<br><br>drcmsingh@aiimspatna.org         |
| Dr Puneet Misra                | All India Institute of Medical Sciences | 1st Floor, Room No. 14,<br>Department of<br>community Medicine,<br>Ansari Nagar, New<br>Delhi 110029.<br>South<br>DELHI                        | 09868397372<br><br>doctormisra@gmail.com            |
| Dr Venugopal                   | King George Hospital                    | 1st Floor, Room No. 09,<br>Department of<br>Paediatrics,<br>Collectorate Junction,<br>Maharani Peta,530002.<br>Visakhapatnam<br>ANDHRA PRADESH | 09866739808<br><br>fbnc.amc@gmail.com               |
| Dr A Venkateshwar Rao          | St. Theresa s Hospital                  | 1st Floor, Room No. 05,<br>Erragadda Main Road<br>Czech Colony Sanath<br>Nagar-500038<br>Hyderabad<br>TELANGANA                                | 09440383778<br><br>drvenkateshwarraoavula@gmail.com |
| Dr Shiv Narang                 | UCMS & Guru Teg Bahadur Hospital,       | 7th Floor, Room No. 27,<br>Department of General<br>Medicine,Dilshad<br>Garden,<br>Shahdara,110095.<br>North East<br>DELHI                     | 09899838807<br><br>shivnarang@gmail.com             |

**Details of Ethics**

| Name of Committee | Approval Status | Date of Approval | Is Independent Ethics |
|-------------------|-----------------|------------------|-----------------------|
|-------------------|-----------------|------------------|-----------------------|



|   |  |  |   |    |
|---|--|--|---|----|
| <b>Committee</b>  |  |  | <b>Committee?</b>   |    |
|   | Ethics Committee, St. Theresa's Hospital, Hyderabad                            | Approved   | 10/11/2020  | No |
|   | Guru Teg Bahadur Hospital Ethics Committee, Delhi                              | Approved   | 28/11/2020  | No |
|   | IEC, All India Institute of Medical Sciences, Patna                            | Approved   | 06/11/2020  | No |
|   | Institute Ethics Committee, All India Institute of Medical Sciences, New Delhi | Submitted/Under Review   | No Date Specified   | No |
| Institutional Ethics Committee, King George Hospital, Visakhapatnam | Approved   | 12/11/2020   | No  |    |
| <b>Regulatory Clearance Status from DCGI</b>                        | <b>Status</b>  |  | <b>Date</b>   |    |
|   | Approved/Obtained  |  | 29/10/2020  |    |
| <b>Health Condition / Problems Studied</b>                          | <b>Health Type</b>   |  | <b>Condition</b>  |    |
|   | Healthy Human Volunteers   |  | Active immunization for the prevention of COVID-19 disease  |    |
| <b>Intervention / Comparator Agent</b>                              | <b>Type</b>  | <b>Name</b>  | <b>Details</b>  |    |
|   | Intervention   | Biological E's novel Covid-19 vaccine containing Receptor Binding Domain of SARS-CoV-2   | With four formulations, BECOV2D, BECOV2C, BECOV2B and BECOV2A. Dose: 0.5ml, Route of administration: Intramuscular injection, Frequency: Two doses at Day 0 and Day 28. |    |
|   | Comparator Agent   | None   | None  |    |
| <b>Inclusion Criteria</b>   | <b>Inclusion Criteria</b>  |  |   |    |
|   | <b>Age From</b>  | 18.00 Year(s)  |   |    |
|   | <b>Age To</b>  | 65.00 Year(s)  |   |    |
|   | <b>Gender</b>  | Both   |   |    |
|   | <b>Details</b>   | <p>1.Ability and willingness to provide written or thumb printed informed consent prior to performing any study specific procedure. &lt;br/&gt;</p> <p>2.Subject, in the opinion of the investigator, has ability to communicate and willingness to comply with the requirements of the protocol. &lt;br/&gt;</p> <p>3.Participants of either gender between ?18 to ?55 years of age at phase-I and ?18 to ?65 years of age at phase-II at the time of 1st vaccination.&lt;br/&gt;</p> <p>4.Participants virologically seronegative to SARS-CoV-2 infection by RT-PCR and anti-SARS-CoV-2 antibody prior to enrolment.&lt;br/&gt;</p> <p>5.Participants seronegative to HIV 1 &amp; 2, HBV and HCV infection prior to enrolment.&lt;br/&gt;</p> <p>6.Participants considered of stable health as judged by the investigator, determined by medical history and physical examination with normal vital signs as defined in the protocol. [Normal vital signs defined as pulse rate of ?60 to ?100 bpm; blood pressure systolic of ?90 mm Hg and &lt;140 mm Hg; diastolic ? 60 mm Hg and &lt;90 mm Hg; body temperature &lt;100.4°F prior to enrolment].&lt;br/&gt;</p> <p>7.Female participants of child bearing potential negative to urine pregnancy test and willingness to avoid becoming pregnant through use of an effective method of contraception or</p> |   |    |



|                             |  |
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|                             | <p>abstinence from the time of study enrolment until six weeks after the last dose of vaccination;&lt;br/&gt; 8.Agrees not to participate in another clinical trial at any time during the total study period.&lt;br/&gt; 9.Agrees to refrain from blood donation during the course of the study.&lt;br/&gt; 10.Agrees to remain in the town where the study centre is located, for the entire duration of the study. &lt;br/&gt; 11.Willing to allow storage and future use of collected biological samples for future research in an anonymised form.&lt;br/&gt;</p>   |
| <b>Exclusion Criteria</b>   | <b>Exclusion Criteria</b>  |
| <b>Details</b>              | <ol style="list-style-type: none"> <li>1.History of vaccination with any investigational vaccine against COVID-19 disease;</li> <li>2.Seropositive to IgG antibodies against SARS CoV-2</li> <li>3.Living in the same household of any COVID-19 positive person;</li> <li>4.Pregnant women, nursing women or women of childbearing potential who are not actively avoiding pregnancy during clinical trials;</li> <li>5.Seriously overweight (BMI <math>\geq</math> 40 Kg/m<sup>2</sup>);</li> <li>6.Use of any investigational or non-registered product other than the study vaccine during the trial period or 3 months prior to enrolment;</li> <li>7.History of receipt of any licensed vaccine within 1 month prior to screening, likely to impact on interpretation of the trial data (e.g., influenza vaccines);</li> <li>8.Current or planned participation in prophylactic drug trials for the duration of the study.</li> <li>9.Any clinically significant abnormal haematology and biochemical laboratory parameters tested at screening as judged by the investigator;</li> <li>10.Body temperature of <math>\geq</math>100.4°F (<math>&gt;</math>38.0°C) or symptoms of an acute illness at the time of screening or prior to vaccination;</li> <li>11.History of severe psychiatric conditions likely to affect participation in the study;</li> <li>12.History of any bleeding disorder (e.g. factor deficiency, coagulopathy or platelet disorder);</li> <li>13.History of allergic disease or reactions likely to be exacerbated by any component of the Biological E's four COVID-19 vaccine formulations;</li> <li>14.Chronic respiratory diseases, including asthma;</li> <li>15.Chronic cardiovascular disease, gastrointestinal disease, liver disease, renal disease, endocrine disorder and neurological illness;</li> <li>16.Any other serious chronic illness requiring hospital specialist supervision;</li> <li>17.Suspected or known current alcohol abuse as defined by an alcohol intake of greater than 42 units every week for at least one year;</li> <li>18.Chronic administration (defined as more than 14 days in total) of immunosuppressant (e.g. corticosteroids, cytotoxic drugs or antimetabolites, etc.) or other immune-modifying drugs (e.g. interferons) during the period starting six months prior to the first vaccine dose including use of any blood products. For corticosteroids, this will mean prednisone <math>\geq</math>0.5 mg/kg/day, or equivalent. Inhaled and topical steroids are allowed;</li> <li>19.Any confirmed or suspected immunosuppressive or immunodeficient condition, based on medical history and physical examination (no laboratory testing required);</li> <li>20.Any medical condition that in the judgment of the investigator would make study participation unsafe.</li> <li>21.Individuals who are part of the study team or close family members of individuals conducting the study.</li> </ol> |
| <b>Method of Generating</b> | Computer generated randomization   |



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|--|---|---|
| <b>Random Sequence Method of Concealment</b> | On-site computer system   |   |
| <b>Blinding/Masking</b>                      | Open Label  |   |
| <b>Primary Outcome</b>                       | <b>Outcome</b>  | <b>Timepoints</b>   |
|  | Phase-I<br>1.any adverse reactions<br>2.any solicited symptoms<br>3.any unsolicited adverse events<br>4.Serious and other medically attended adverse events<br>Phase-II<br>1.Virus neutralizing antibody (NAb) assay against SARS-CoV-2 virus<br>2.Seroconversion rates in terms of proportion of subjects with ?4-fold increase in neutralizing antibodies<br>3.Geometric mean titres and Geometric mean fold rise in neutralizing antibodies                        | Phase-I<br>1.within 2 hours of immediate post vaccination period;<br>2.within 7 consecutive days after each dose captured through subject diary;<br>3.at 6 months and 12 months post 2nd dose.<br>4.at 6 months and 12 months post 2nd dose<br><br>Phase-II<br>1.at baseline, 28, 42, 56 days and again at 6 months and 12 months post 2nd dose.<br>2.from baseline<br>3.from baseline  |
| <b>Secondary Outcome</b>                     | <b>Outcome</b>  | <b>Timepoints</b>   |
|  | Phase-I<br>1.IgG antibodies against SARS-CoV-2 RBD antigen<br>2.Virus neutralizing antibody (NAb) assay against SARS-CoV-2 virus<br>3.Interferon-gamma cytokine levels<br><br>Phase-II<br>1.any adverse reactions<br>2.any solicited symptoms<br>3.any unsolicited adverse events<br>4.Serious and other medically attended adverse events in all study participants<br>5.IgG antibodies against SARS-CoV-2 RBD antigen   | Phase-I<br>1 & 2.at baseline, 28, 42, 56 days and again at 6 months and 12 months post 2nd dose.<br>3.at baseline and again at Day 56.<br><br>Phase-II<br>1.within 2 hours (first 120 min) of immediate post vaccination period;<br>2.within 7 consecutive days after each dose captured through subject diary;<br>3.during 28 days after each dose of study vaccination;<br>4.at 6 months and 12 months post 2nd dose.<br>5.at baseline, 28, 42, 56 days and again at 6 months and 12 months post 2nd dose |
| <b>Target Sample Size</b>                    | <b>Total Sample Size=360</b><br><b>Sample Size from India=360</b><br><b>Final Enrollment numbers achieved (Total)=Applicable only for Completed/Terminated trials</b><br><b>Final Enrollment numbers achieved (India)=Applicable only for Completed/Terminated trials</b>   |   |
| <b>Phase of Trial</b>                        | Phase 1/ Phase 2  |   |
| <b>Date of First Enrollment (India)</b>      | 16/11/2020  |   |
| <b>Date of First Enrollment (Global)</b>     | No Date Specified   |   |
| <b>Estimated Duration of Trial</b>           | <b>Years=1</b><br><b>Months=2</b><br><b>Days=0</b>  |   |
| <b>Recruitment Status of Trial (Global)</b>  | Not Applicable  |   |
| <b>Recruitment Status of Trial (India)</b>   | Closed to Recruitment of Participants   |   |
| <b>Publication Details</b>                   | None  |   |
| <b>Brief Summary</b>                         | <small>This is a phase I sequentially followed by phase II, open label, randomized trial to assess safety, tolerability, reactogenicity and immunogenicity of the Biological E-14 candidate vaccine formulations for prevention/protection against COVID-19 disease in adult volunteers of either gender between 18-55 years of age in Phase I and 18-65 years of age in phase II. A total of 360 subjects of either gender would be enrolled into the study.</small> |   |



The study will be conducted in compliance with CDRI 227(5), ICMR and Indian good clinical practice guidelines in force at the time of study conduct.

The aim of this phase I essentially followed by phase II is to select a preferred vaccine formulation among the 4 candidate formulations based on overall safety and immunogenicity considerations.