



## Clinical trial results:

### Double-Blind, Randomized, Placebo-Controlled Phase 2b, Multi-center Study to Evaluate the Safety, Tolerability, Efficacy and Immunogenicity of a 2-Dose and a 3- Dose Regimen of V160 (Cytomegalovirus [CMV] Vaccine) in Healthy Seronegative Women, 16 to 35 Years of Age

#### Summary

|                          |                |
|--------------------------|----------------|
| EudraCT number           | 2017-004233-86 |
| Trial protocol           | FI ES          |
| Global end of trial date | 30 June 2021   |

#### Results information

|                                |                  |
|--------------------------------|------------------|
| Result version number          | v1 (current)     |
| This version publication date  | 17 November 2021 |
| First version publication date | 17 November 2021 |

#### Trial information

##### Trial identification

|                       |          |
|-----------------------|----------|
| Sponsor protocol code | V160-002 |
|-----------------------|----------|

##### Additional study identifiers

|                                    |             |
|------------------------------------|-------------|
| ISRCTN number                      | -           |
| ClinicalTrials.gov id (NCT number) | NCT03486834 |
| WHO universal trial number (UTN)   | -           |

Notes:

#### Sponsors

|                              |  |
|------------------------------|--|
| Sponsor organisation name    | Merck Sharp & Dohme Corp.  |
| Sponsor organisation address | 2000 Galloping Hill Road, Kenilworth, United States, 07033                                   |
| Public contact               | Clinical Trials Disclosure, Merck Sharp & Dohme Corp.,<br>ClinicalTrialsDisclosure@merck.com |
| Scientific contact           | Clinical Trials Disclosure, Merck Sharp & Dohme Corp.,<br>ClinicalTrialsDisclosure@merck.com |

Notes:

#### Paediatric regulatory details

|  |    |
|--|----|
| Is trial part of an agreed paediatric investigation plan (PIP)       | No |
| Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial? | No |
| Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial? | No |

Notes:

## Results analysis stage

|  |                 |
|--|-----------------|
| Analysis stage                                       | Final           |
| Date of interim/final analysis                       | 30 June 2021    |
| Is this the analysis of the primary completion data? | Yes             |
| Primary completion date                              | 30 October 2020 |
| Global end of trial reached?                         | Yes             |
| Global end of trial date                             | 30 June 2021    |
| Was the trial ended prematurely?                     | No              |

Notes:

## General information about the trial

Main objective of the trial:

This study evaluated the safety, tolerability, and efficacy of the cytomegalovirus (CMV) vaccine (V160) administered in a 2-dose or 3-dose regimen to healthy seronegative women 16 to 35 years of age. Participants received blinded V160 on Day 1, Month 2, and Month 6 (3-dose regimen), V160 on Day 1 and Month 6 and placebo at Month 2 (2-dose regimen), or placebo on Day 1, Month 2, and Month 6, and were followed to approximately Month 24. The primary hypothesis of the study was that administration of a 3-dose regimen of V160 will reduce the incidence of primary CMV infection compared to placebo.

Protection of trial subjects:

This study was conducted in conformance with Good Clinical Practice standards and applicable country and/or local statutes and regulations regarding ethical committee review, informed consent, and the protection of human subjects participating in biomedical research.

Background therapy: -

Evidence for comparator: -

|   |               |
|---|---------------|
| Actual start date of recruitment                          | 30 April 2018 |
| Long term follow-up planned                               | No            |
| Independent data monitoring committee (IDMC) involvement? | Yes           |

Notes:

## Population of trial subjects

### Subjects enrolled per country

|                                      |                        |
|--------------------------------------|------------------------|
| Country: Number of subjects enrolled | Australia: 58          |
| Country: Number of subjects enrolled | Canada: 316            |
| Country: Number of subjects enrolled | Spain: 164             |
| Country: Number of subjects enrolled | Finland: 400           |
| Country: Number of subjects enrolled | Israel: 260            |
| Country: Number of subjects enrolled | Russian Federation: 75 |
| Country: Number of subjects enrolled | United States: 927     |
| Worldwide total number of subjects   | 2200                   |
| EEA total number of subjects         | 564                    |

Notes:

### Subjects enrolled per age group

|   |   |
|---|---|
| In utero                                  | 0 |
| Preterm newborn - gestational age < 37 wk | 0 |
| Newborns (0-27 days)                      | 0 |

|  |      |
|--|------|
| Infants and toddlers (28 days-23 months) | 0    |
| Children (2-11 years)                    | 0    |
| Adolescents (12-17 years)                | 53   |
| Adults (18-64 years)                     | 2147 |
| From 65 to 84 years                      | 0    |
| 85 years and over                        | 0    |

## Subject disposition

### Recruitment

Recruitment details: -

### Pre-assignment

Screening details:

A total of approximately 2100 participants were planned to be enrolled with 2200 participants actually randomized.

### Period 1

|                              |                                |
|------------------------------|--------------------------------|
| Period 1 title               | Overall Study (overall period) |
| Is this the baseline period? | Yes                            |
| Allocation method            | Randomised - controlled        |
| Blinding used                | Double blind                   |
| Roles blinded                | Subject, Investigator          |

### Arms

|                              |                     |
|------------------------------|---------------------|
| Are arms mutually exclusive? | Yes                 |
| <b>Arm title</b>             | V160 3-Dose Regimen |

Arm description:

Participants received V160 vaccination by intramuscular (IM) injection on Day 1, Month 2, and Month 6.

|  |                               |
|--|-------------------------------|
| Arm type                               | Experimental                  |
| Investigational medicinal product name | V160                          |
| Investigational medicinal product code |                               |
| Other name                             | Human cytomegalovirus vaccine |
| Pharmaceutical forms                   | Injection                     |
| Routes of administration               | Intramuscular use             |

Dosage and administration details:

V160 was administered as a 0.5 mL (100 Units/0.5 mL dose with Merck aluminum phosphate adjuvant [MAPA], 4°C stable formulation) IM injection.

|                  |                     |
|------------------|---------------------|
| <b>Arm title</b> | V160 2-Dose Regimen |
|------------------|---------------------|

Arm description:

Participants received V160 vaccination by IM injection on Day 1 and Month 6 and placebo at Month 2.

|  |                               |
|--|-------------------------------|
| Arm type                               | Experimental                  |
| Investigational medicinal product name | V160                          |
| Investigational medicinal product code |                               |
| Other name                             | Human cytomegalovirus vaccine |
| Pharmaceutical forms                   | Injection                     |
| Routes of administration               | Intramuscular use             |

Dosage and administration details:

V160 was administered as a 0.5 mL (100 Units/0.5 mL dose with Merck aluminum phosphate adjuvant [MAPA], 4°C stable formulation) IM injection.

|                  |         |
|------------------|---------|
| <b>Arm title</b> | Placebo |
|------------------|---------|

Arm description:

Participants received placebo by IM injection on Day 1, Month 2, and Month 6.

|  |                   |
|--|-------------------|
| Arm type                               | Placebo           |
| Investigational medicinal product name | Placebo           |
| Investigational medicinal product code |                   |
| Other name                             |                   |
| Pharmaceutical forms                   | Injection         |
| Routes of administration               | Intramuscular use |

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**Dosage and administration details:**

Saline solution administered as a 0.5 mL IM injection

| <b>Number of subjects in period 1</b> | <b>V160 3-Dose<br/>Regimen</b> | <b>V160 2-Dose<br/>Regimen</b> | <b>Placebo</b> |
|---------------------------------------|--------------------------------|--------------------------------|----------------|
| Started                               | 733                            | 733                            | 734            |
| Treatment 1                           | 729                            | 729                            | 733            |
| Treatment 2                           | 680                            | 680                            | 679            |
| Treatment 3                           | 614                            | 631                            | 622            |
| Completed                             | 614                            | 631                            | 622            |
| Not completed                         | 119                            | 102                            | 112            |
| Consent withdrawn by subject          | 46                             | 46                             | 52             |
| Physician decision                    | 5                              | 2                              | 3              |
| Non-compliance with Study Drug        | 2                              | 2                              | -              |
| Adverse event, non-fatal              | 8                              | 7                              | -              |
| Protocol Deviation                    | 2                              | 3                              | 3              |
| Randomized but not treated            | 4                              | 4                              | 1              |
| Pregnancy                             | 10                             | 12                             | 12             |
| Withdrawal by Parent/Guardian         | 1                              | 2                              | 2              |
| Lost to follow-up                     | 41                             | 24                             | 39             |

## Baseline characteristics

### Reporting groups

|  |                     |
|--|---------------------|
| Reporting group title  | V160 3-Dose Regimen |
| Reporting group description:   |                     |
| Participants received V160 vaccination by intramuscular (IM) injection on Day 1, Month 2, and Month 6. |                     |
| Reporting group title  | V160 2-Dose Regimen |
| Reporting group description:   |                     |
| Participants received V160 vaccination by IM injection on Day 1 and Month 6 and placebo at Month 2.    |                     |
| Reporting group title  | Placebo             |
| Reporting group description:   |                     |
| Participants received placebo by IM injection on Day 1, Month 2, and Month 6.                          |                     |

| Reporting group values                             | V160 3-Dose Regimen | V160 2-Dose Regimen | Placebo |
|--|---------------------|---------------------|---------|
| Number of subjects                                 | 733                 | 733                 | 734     |
| Age categorical                                    |                     |                     |         |
| Units: Participants                                |                     |                     |         |
| In utero   | 0                   | 0                   | 0       |
| Preterm newborn infants (gestational age < 37 wks) | 0                   | 0                   | 0       |
| Newborns (0-27 days)                               | 0                   | 0                   | 0       |
| Infants and toddlers (28 days-23 months)           | 0                   | 0                   | 0       |
| Children (2-11 years)                              | 0                   | 0                   | 0       |
| Adolescents (12-17 years)                          | 16                  | 15                  | 22      |
| Adults (18-64 years)                               | 717                 | 718                 | 712     |
| From 65-84 years                                   | 0                   | 0                   | 0       |
| 85 years and over                                  | 0                   | 0                   | 0       |
| Age Continuous                                     |                     |                     |         |
| Units: years                                       |                     |                     |         |
| arithmetic mean                                    | 26.0                | 26.1                | 25.9    |
| standard deviation                                 | ± 5.0               | ± 4.9               | ± 4.9   |
| Sex: Female, Male                                  |                     |                     |         |
| Units: Participants                                |                     |                     |         |
| Female   | 733                 | 733                 | 734     |
| Male   | 0                   | 0                   | 0       |
| Race (NIH/OMB)                                     |                     |                     |         |
| Units: Subjects                                    |                     |                     |         |
| American Indian or Alaska Native                   | 0                   | 1                   | 4       |
| Asian  | 6                   | 7                   | 6       |
| Native Hawaiian or Other Pacific Islander          | 0                   | 0                   | 0       |
| Black or African American                          | 47                  | 49                  | 43      |
| White  | 657                 | 652                 | 665     |
| More than one race                                 | 23                  | 23                  | 16      |
| Unknown or Not Reported                            | 0                   | 1                   | 0       |
| Ethnicity (NIH/OMB)                                |                     |                     |         |
| Units: Subjects                                    |                     |                     |         |
| Hispanic or Latino                                 | 144                 | 145                 | 143     |

|                         |     |     |     |
|-------------------------|-----|-----|-----|
| Not Hispanic or Latino  | 588 | 585 | 587 |
| Unknown or Not Reported | 1   | 3   | 4   |

| Reporting group values                             | Total |  |  |
|--|-------|--|--|
| Number of subjects                                 | 2200  |  |  |
| Age categorical                                    |       |  |  |
| Units: Participants                                |       |  |  |
| In utero   | 0     |  |  |
| Preterm newborn infants (gestational age < 37 wks) | 0     |  |  |
| Newborns (0-27 days)                               | 0     |  |  |
| Infants and toddlers (28 days-23 months)           | 0     |  |  |
| Children (2-11 years)                              | 0     |  |  |
| Adolescents (12-17 years)                          | 53    |  |  |
| Adults (18-64 years)                               | 2147  |  |  |
| From 65-84 years                                   | 0     |  |  |
| 85 years and over                                  | 0     |  |  |
| Age Continuous                                     |       |  |  |
| Units: years                                       |       |  |  |
| arithmetic mean                                    |       |  |  |
| standard deviation                                 | -     |  |  |
| Sex: Female, Male                                  |       |  |  |
| Units: Participants                                |       |  |  |
| Female   | 2200  |  |  |
| Male   | 0     |  |  |
| Race (NIH/OMB)                                     |       |  |  |
| Units: Subjects                                    |       |  |  |
| American Indian or Alaska Native                   | 5     |  |  |
| Asian  | 19    |  |  |
| Native Hawaiian or Other Pacific Islander          | 0     |  |  |
| Black or African American                          | 139   |  |  |
| White  | 1974  |  |  |
| More than one race                                 | 62    |  |  |
| Unknown or Not Reported                            | 1     |  |  |
| Ethnicity (NIH/OMB)                                |       |  |  |
| Units: Subjects                                    |       |  |  |
| Hispanic or Latino                                 | 432   |  |  |
| Not Hispanic or Latino                             | 1760  |  |  |
| Unknown or Not Reported                            | 8     |  |  |

## End points

### End points reporting groups

|  |                     |
|--|---------------------|
| Reporting group title  | V160 3-Dose Regimen |
| Reporting group description:   |                     |
| Participants received V160 vaccination by intramuscular (IM) injection on Day 1, Month 2, and Month 6. |                     |
| Reporting group title  | V160 2-Dose Regimen |
| Reporting group description:   |                     |
| Participants received V160 vaccination by IM injection on Day 1 and Month 6 and placebo at Month 2.    |                     |
| Reporting group title  | Placebo             |
| Reporting group description:   |                     |
| Participants received placebo by IM injection on Day 1, Month 2, and Month 6.                          |                     |

### Primary: Number of Participants Who Became Infected With Wild-Type Cytomegalovirus Infection (CMVi) Starting at 4 Weeks Post Last Dose (V160 3-dose Regimen Group and Placebo Group)

|                 |  |
|-----------------|--|
| End point title | Number of Participants Who Became Infected With Wild-Type Cytomegalovirus Infection (CMVi) Starting at 4 Weeks Post Last Dose (V160 3-dose Regimen Group and Placebo Group) <sup>[1]</sup> |
|-----------------|--|

#### End point description:

CMVi was defined as the detection of wild-type CMV (non vaccine type) by polymerase chain reaction in a single saliva or urine sample in a previously CMV-uninfected participant. CMVi cases in the 3-dose regimen and placebo groups were reported and incidence rate (per 100 person-years) calculated based on follow-up time starting at 4 weeks post last dose (Month 7) through approximately Month 24 (or time point to reach required cases for assessment). The percent reduction in CMVi incidence rate in the 3-dose regimen group compared to the placebo group was assessed. Participants who were CMV seronegative at Day 1 and CMV negative by polymerase chain reaction (PCR) for nonvaccine strain virus from post Day 1 through Month 7, had received all 3 injections/vaccinations within the vaccination visit window, and did not have any deviations from protocol deemed to potentially interfere with the evaluation of efficacy or immune response to injection of V160.

|                |         |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

#### End point timeframe:

4 weeks post last vaccination (Month 7) up to ~Month 24

#### Notes:

[1] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: For this endpoint, V160 3-Dose regimen group and the placebo group were the only two arms being evaluated.

| End point values            | V160 3-Dose Regimen | Placebo         |  |  |
|-----------------------------|---------------------|-----------------|--|--|
| Subject group type          | Reporting group     | Reporting group |  |  |
| Number of subjects analysed | 556                 | 543             |  |  |
| Units: Participants         | 14                  | 24              |  |  |

### Statistical analyses

|                            |  |
|----------------------------|--|
| Statistical analysis title | Incidence Rate Estimate of V160 3-Dose |
| Comparison groups          | V160 3-Dose Regimen v Placebo          |



|   |                         |
|---|-------------------------|
| Number of subjects included in analysis | 1099                    |
| Analysis specification                  | Pre-specified           |
| Analysis type                           |                         |
| Parameter estimate                      | Incidence Rate Estimate |
| Point estimate                          | 2.9                     |
| Confidence interval                     |                         |
| level                                   | 95 %                    |
| sides                                   | 2-sided                 |
| lower limit                             | 1.6                     |
| upper limit                             | 4.9                     |

|   |                                      |
|---|--------------------------------------|
| <b>Statistical analysis title</b>       | Vaccine Efficacy V160 3-Dose Regimen |
| Comparison groups                       | V160 3-Dose Regimen v Placebo        |
| Number of subjects included in analysis | 1099                                 |
| Analysis specification                  | Pre-specified                        |
| Analysis type                           |                                      |
| Parameter estimate                      | Vaccine Efficacy                     |
| Point estimate                          | 42.4                                 |
| Confidence interval                     |                                      |
| level                                   | 95 %                                 |
| sides                                   | 2-sided                              |
| lower limit                             | -13.5                                |
| upper limit                             | 71.1                                 |

|   |                                    |
|---|------------------------------------|
| <b>Statistical analysis title</b>       | Incidence Rate Estimate of Placebo |
| Comparison groups                       | Placebo v V160 3-Dose Regimen      |
| Number of subjects included in analysis | 1099                               |
| Analysis specification                  | Pre-specified                      |
| Analysis type                           |                                    |
| Parameter estimate                      | Incidence Rate Estimate            |
| Point estimate                          | 5.1                                |
| Confidence interval                     |                                    |
| level                                   | 95 %                               |
| sides                                   | 2-sided                            |
| lower limit                             | 3.3                                |
| upper limit                             | 7.6                                |

### **Primary: Number of Participants With Solicited Injection-site Adverse Events**

|                 |   |
|-----------------|---|
| End point title | Number of Participants With Solicited Injection-site Adverse Events |
|-----------------|---|

End point description:

An adverse event (AE) is any untoward medical occurrence in a participant, temporally associated with the use of study treatment, whether or not considered related to the study treatment. An AE can therefore be any unfavorable and unintended sign (including an abnormal laboratory finding), symptom, or disease (new or exacerbated) temporally associated with the use of a study treatment. Following

vaccination with V160 or placebo, the number of participants with solicited injection-site AEs was assessed. The analysis population included all randomized participants who received at least 1 injection of V160 or placebo, had safety follow-up data, and had been assigned to the treatment arm corresponding to the actual clinical material received.

|                                     |         |
|-------------------------------------|---------|
| End point type                      | Primary |
| End point timeframe:                |         |
| Up to 5 days after each vaccination |         |

| End point values            | V160 3-Dose Regimen | V160 2-Dose Regimen | Placebo         |  |
|-----------------------------|---------------------|---------------------|-----------------|--|
| Subject group type          | Reporting group     | Reporting group     | Reporting group |  |
| Number of subjects analysed | 728                 | 729                 | 732             |  |
| Units: Participants         | 683                 | 668                 | 249             |  |

### Statistical analyses

|   |                               |
|---|-------------------------------|
| <b>Statistical analysis title</b>       | V160 3-dose vs. Placebo       |
| Comparison groups                       | V160 3-Dose Regimen v Placebo |
| Number of subjects included in analysis | 1460                          |
| Analysis specification                  | Pre-specified                 |
| Analysis type                           | other                         |
| Parameter estimate                      | Difference in Percent         |
| Point estimate                          | 59.8                          |
| Confidence interval                     |                               |
| level                                   | 95 %                          |
| sides                                   | 2-sided                       |
| lower limit                             | 55.8                          |
| upper limit                             | 63.5                          |

|   |                               |
|---|-------------------------------|
| <b>Statistical analysis title</b>       | V160 2-dose vs. Placebo       |
| Comparison groups                       | V160 2-Dose Regimen v Placebo |
| Number of subjects included in analysis | 1461                          |
| Analysis specification                  | Pre-specified                 |
| Analysis type                           | other                         |
| Parameter estimate                      | Difference in Percent         |
| Point estimate                          | 57.6                          |
| Confidence interval                     |                               |
| level                                   | 95 %                          |
| sides                                   | 2-sided                       |
| lower limit                             | 53.5                          |
| upper limit                             | 61.5                          |

**Primary: Number of Participants With Solicited Systemic AEs**

|  |  |
|--|--|
| End point title  | Number of Participants With Solicited Systemic AEs |
| End point description:   |  |
| An AE is any untoward medical occurrence in a participant, temporally associated with the use of study treatment, whether or not considered related to the study treatment. An AE can therefore be any unfavorable and unintended sign (including an abnormal laboratory finding), symptom, or disease (new or exacerbated) temporally associated with the use of a study treatment. Following vaccination with V160 or placebo, the number of participants with solicited systemic AEs was assessed. The analysis population included all randomized participants who received at least 1 injection of V160 or placebo, had safety follow-up data, and had been assigned to the treatment arm corresponding to the actual clinical material received. |  |
| End point type   | Primary  |
| End point timeframe:   |  |
| Up to 14 days after each vaccination   |  |

| End point values            | V160 3-Dose Regimen | V160 2-Dose Regimen | Placebo         |  |
|-----------------------------|---------------------|---------------------|-----------------|--|
| Subject group type          | Reporting group     | Reporting group     | Reporting group |  |
| Number of subjects analysed | 728                 | 729                 | 732             |  |
| Units: Participants         | 621                 | 633                 | 508             |  |

**Statistical analyses**

|   |                               |
|---|-------------------------------|
| <b>Statistical analysis title</b>       | V160 3-dose vs.Placebo        |
| Comparison groups                       | V160 3-Dose Regimen v Placebo |
| Number of subjects included in analysis | 1460                          |
| Analysis specification                  | Pre-specified                 |
| Analysis type                           | other                         |
| Parameter estimate                      | Difference in Percent         |
| Point estimate                          | 15.9                          |
| Confidence interval                     |                               |
| level                                   | 95 %                          |
| sides                                   | 2-sided                       |
| lower limit                             | 11.7                          |
| upper limit                             | 20.1                          |

|   |                               |
|---|-------------------------------|
| <b>Statistical analysis title</b>       | V160 2-dose vs. Placebo       |
| Comparison groups                       | V160 2-Dose Regimen v Placebo |
| Number of subjects included in analysis | 1461                          |
| Analysis specification                  | Pre-specified                 |
| Analysis type                           | other                         |
| Parameter estimate                      | Difference in Percent         |
| Point estimate                          | 17.4                          |

|                     |         |
|---------------------|---------|
| Confidence interval |         |
| level               | 95 %    |
| sides               | 2-sided |
| lower limit         | 13.3    |
| upper limit         | 21.6    |

### Primary: Number of Participants With Vaccine-related Serious Adverse Events

|                 |  |
|-----------------|--|
| End point title | Number of Participants With Vaccine-related Serious Adverse Events |
|-----------------|--|

End point description:

A serious adverse event (SAE) is an AE that is life-threatening, requires or prolongs an existing hospitalization, results in persistent or significant disability or incapacity, is a congenital anomaly or birth defect, or is another important medical event deemed such by medical or scientific judgment. Relatedness of an SAE to the study vaccine was determined by the investigator. Following vaccination with V160 or placebo, the number of participants with vaccine-related serious adverse events was assessed. The analysis population included all randomized participants who received at least 1 injection of V160 or placebo, had safety follow-up data, and had been assigned to the treatment arm corresponding to the actual clinical material received.

|                |         |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

End point timeframe:

Up to 14 days after each vaccination

| End point values            | V160 3-Dose Regimen | V160 2-Dose Regimen | Placebo         |  |
|-----------------------------|---------------------|---------------------|-----------------|--|
| Subject group type          | Reporting group     | Reporting group     | Reporting group |  |
| Number of subjects analysed | 728                 | 729                 | 732             |  |
| Units: Participants         | 0                   | 0                   | 0               |  |

### Statistical analyses

|   |                               |
|---|-------------------------------|
| Statistical analysis title              | V160 3-dose vs. Placebo       |
| Comparison groups                       | V160 3-Dose Regimen v Placebo |
| Number of subjects included in analysis | 1460                          |
| Analysis specification                  | Pre-specified                 |
| Analysis type                           | other                         |
| Parameter estimate                      | Difference in Percent         |
| Point estimate                          | 0                             |
| Confidence interval                     |                               |
| level                                   | 95 %                          |
| sides                                   | 2-sided                       |
| lower limit                             | -0.5                          |
| upper limit                             | 0.5                           |

|                            |                         |
|----------------------------|-------------------------|
| Statistical analysis title | V160 2-dose vs. Placebo |
|----------------------------|-------------------------|

|   |                               |
|---|-------------------------------|
| Comparison groups                       | V160 2-Dose Regimen v Placebo |
| Number of subjects included in analysis | 1461                          |
| Analysis specification                  | Pre-specified                 |
| Analysis type                           | other                         |
| Parameter estimate                      | Difference in Percent         |
| Point estimate                          | 0                             |
| Confidence interval                     |                               |
| level                                   | 95 %                          |
| sides                                   | 2-sided                       |
| lower limit                             | -0.5                          |
| upper limit                             | 0.5                           |

## Secondary: Number of Participants Who Became Infected With Wild-Type CMV Infection Starting at 4 Weeks Post Last Dose (V160 2-dose Regimen Group and Placebo Group)

|                 |   |
|-----------------|---|
| End point title | Number of Participants Who Became Infected With Wild-Type CMV Infection Starting at 4 Weeks Post Last Dose (V160 2-dose Regimen Group and Placebo Group) <sup>[2]</sup> |
|-----------------|---|

End point description:

CMVi is defined as detection of wild-type CMV (non-vaccine type) by polymerase chain reaction in a single saliva or urine sample in a previously CMV-uninfected participant. CMVi cases in the 2-dose regimen and placebo groups were reported and incidence rate (per 100 person-years) calculated based on follow-up time starting at 4 weeks post last dose (Month 7) through approximately Month 24 (or time point to reach required cases for assessment). The percent reduction in CMVi incidence rate in the 2-dose regimen group compared to the placebo group was assessed. The analysis population included participants who were CMV seronegative at Day 1 and CMV negative by polymerase chain reaction (PCR) for nonvaccine strain virus from post Day 1 through Month 7, had received all 2 injections/vaccinations within the vaccination visit window, and did not have any deviations from protocol deemed to potentially interfere with the evaluation of efficacy or immune response to injection of V160.

|                |           |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

4 weeks post last vaccination (Month 7) up to ~Month 24

Notes:

[2] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: For this endpoint, V160 2-Dose regimen group and the placebo group were the only two arms being evaluated.

| End point values            | V160 2-Dose Regimen | Placebo         |  |  |
|-----------------------------|---------------------|-----------------|--|--|
| Subject group type          | Reporting group     | Reporting group |  |  |
| Number of subjects analysed | 546                 | 543             |  |  |
| Units: Participants         | 31                  | 24              |  |  |

## Statistical analyses

|                            |                                     |
|----------------------------|-------------------------------------|
| Statistical analysis title | Incidence Rate Estimate V160 2-Dose |
| Comparison groups          | V160 2-Dose Regimen v Placebo       |

|   |                         |
|---|-------------------------|
| Number of subjects included in analysis | 1089                    |
| Analysis specification                  | Pre-specified           |
| Analysis type                           |                         |
| Parameter estimate                      | Incidence Rate Estimate |
| Point estimate                          | 6.7                     |
| Confidence interval                     |                         |
| level                                   | 95 %                    |
| sides                                   | 2-sided                 |
| lower limit                             | 4.6                     |
| upper limit                             | 9.5                     |

|   |                                 |
|---|---------------------------------|
| <b>Statistical analysis title</b>       | Incidence Rate Estimate Placebo |
| Comparison groups                       | Placebo v V160 2-Dose Regimen   |
| Number of subjects included in analysis | 1089                            |
| Analysis specification                  | Pre-specified                   |
| Analysis type                           |                                 |
| Parameter estimate                      | Incidence Rate Estimate         |
| Point estimate                          | 5.1                             |
| Confidence interval                     |                                 |
| level                                   | 95 %                            |
| sides                                   | 2-sided                         |
| lower limit                             | 3.3                             |
| upper limit                             | 7.6                             |

|   |                               |
|---|-------------------------------|
| <b>Statistical analysis title</b>       | Vaccine Efficacy V160 2-Dose  |
| Comparison groups                       | V160 2-Dose Regimen v Placebo |
| Number of subjects included in analysis | 1089                          |
| Analysis specification                  | Pre-specified                 |
| Analysis type                           |                               |
| Parameter estimate                      | Vaccine Efficacy              |
| Point estimate                          | -32                           |
| Confidence interval                     |                               |
| level                                   | 95 %                          |
| sides                                   | 2-sided                       |
| lower limit                             | -135                          |
| upper limit                             | 25                            |

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

All-cause mortality and serious adverse events: Up to 24 months; Non-serious adverse events: Up to 14 days following any vaccination.

Adverse event reporting additional description:

The analysis population included all randomized participants who received at least 1 injection of V160 or placebo, had safety follow-up data, and had been assigned to the treatment arm corresponding to the actual clinical material received. The all-cause mortality analysis population included all randomized participants.

|                 |            |
|-----------------|------------|
| Assessment type | Systematic |
|-----------------|------------|

### Dictionary used

|                    |        |
|--------------------|--------|
| Dictionary name    | MedDRA |
| Dictionary version | 24.0   |

### Reporting groups

|                       |                   |
|-----------------------|-------------------|
| Reporting group title | V160 3-Dose Group |
|-----------------------|-------------------|

Reporting group description:

Participants received V160 vaccination by intramuscular (IM) injection on Day 1, Month 2, and Month 6.

|                       |                   |
|-----------------------|-------------------|
| Reporting group title | V160 2-Dose Group |
|-----------------------|-------------------|

Reporting group description:

Participants received V160 vaccination by IM injection on Day 1 and Month 6 and placebo at Month 2.

|                       |               |
|-----------------------|---------------|
| Reporting group title | Placebo Group |
|-----------------------|---------------|

Reporting group description:

Participants received placebo by IM injection on Day 1, Month 2, and Month 6.

| Serious adverse events  | V160 3-Dose Group | V160 2-Dose Group | Placebo Group    |
|---|-------------------|-------------------|------------------|
| Total subjects affected by serious adverse events                   |                   |                   |                  |
| subjects affected / exposed   | 22 / 728 (3.02%)  | 29 / 729 (3.98%)  | 26 / 732 (3.55%) |
| number of deaths (all causes)                                       | 0                 | 0                 | 0                |
| number of deaths resulting from adverse events                      | 0                 | 0                 | 0                |
| Neoplasms benign, malignant and unspecified (incl cysts and polyps) |                   |                   |                  |
| Cervix carcinoma  |                   |                   |                  |
| subjects affected / exposed   | 0 / 728 (0.00%)   | 0 / 729 (0.00%)   | 1 / 732 (0.14%)  |
| occurrences causally related to treatment / all                     | 0 / 0             | 0 / 0             | 0 / 1            |
| deaths causally related to treatment / all                          | 0 / 0             | 0 / 0             | 0 / 0            |
| Enchondromatosis  |                   |                   |                  |
| subjects affected / exposed   | 0 / 728 (0.00%)   | 0 / 729 (0.00%)   | 1 / 732 (0.14%)  |
| occurrences causally related to treatment / all                     | 0 / 0             | 0 / 0             | 0 / 1            |
| deaths causally related to treatment / all                          | 0 / 0             | 0 / 0             | 0 / 0            |
| Ovarian germ cell teratoma benign                                   |                   |                   |                  |

|   |                 |                 |                 |
|---|-----------------|-----------------|-----------------|
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Vascular disorders                              |                 |                 |                 |
| Haemorrhage                                     |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Hypotension                                     |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Pregnancy, puerperium and perinatal conditions  |                 |                 |                 |
| Abortion missed                                 |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 0           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Abortion spontaneous                            |                 |                 |                 |
| subjects affected / exposed                     | 2 / 728 (0.27%) | 6 / 729 (0.82%) | 7 / 732 (0.96%) |
| occurrences causally related to treatment / all | 0 / 2           | 0 / 6           | 0 / 7           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Anembryonic gestation                           |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 2 / 732 (0.27%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 0           | 0 / 2           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Eclampsia                                       |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Ectopic pregnancy                               |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 2 / 732 (0.27%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 0           | 0 / 2           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |



|  |                 |                 |                 |
|--|-----------------|-----------------|-----------------|
| Postpartum haemorrhage                               |                 |                 |                 |
| subjects affected / exposed                          | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all      | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all           | 0 / 0           | 0 / 0           | 0 / 0           |
| Pre-eclampsia  |                 |                 |                 |
| subjects affected / exposed                          | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all      | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all           | 0 / 0           | 0 / 0           | 0 / 0           |
| Ruptured ectopic pregnancy                           |                 |                 |                 |
| subjects affected / exposed                          | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all      | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all           | 0 / 0           | 0 / 0           | 0 / 0           |
| Threatened labour                                    |                 |                 |                 |
| subjects affected / exposed                          | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 2           |
| deaths causally related to treatment / all           | 0 / 0           | 0 / 0           | 0 / 0           |
| General disorders and administration site conditions |                 |                 |                 |
| Asthenia   |                 |                 |                 |
| subjects affected / exposed                          | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all      | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all           | 0 / 0           | 0 / 0           | 0 / 0           |
| Chest pain   |                 |                 |                 |
| subjects affected / exposed                          | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 1           |
| deaths causally related to treatment / all           | 0 / 0           | 0 / 0           | 0 / 0           |
| Fatigue  |                 |                 |                 |
| subjects affected / exposed                          | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all      | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all           | 0 / 0           | 0 / 0           | 0 / 0           |
| Reproductive system and breast disorders             |                 |                 |                 |
| Adnexal torsion                                      |                 |                 |                 |

|   |                 |                 |                 |
|---|-----------------|-----------------|-----------------|
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Intermenstrual bleeding                         |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Ovarian cyst                                    |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Ovarian cyst ruptured                           |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Respiratory, thoracic and mediastinal disorders |                 |                 |                 |
| Pulmonary embolism                              |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 0           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Psychiatric disorders                           |                 |                 |                 |
| Alcohol abuse                                   |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Anxiety   |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 0           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Depression                                      |                 |                 |                 |
| subjects affected / exposed                     | 2 / 728 (0.27%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 2           | 0 / 0           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |

|   |                 |                 |                 |
|---|-----------------|-----------------|-----------------|
| Suicidal ideation                               |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Suicide attempt                                 |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Injury, poisoning and procedural complications  |                 |                 |                 |
| Ankle fracture                                  |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 2 / 729 (0.27%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 2           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Chest injury                                    |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Concussion                                      |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Intentional overdose                            |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Pelvic bone injury                              |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Procedural haemorrhage                          |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |

|   |                 |                 |                 |
|---|-----------------|-----------------|-----------------|
| Radius fracture                                 |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 0           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Rib fracture                                    |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Splenic rupture                                 |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Tendon rupture                                  |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Tibia fracture                                  |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Traumatic arthropathy                           |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 0           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Cardiac disorders                               |                 |                 |                 |
| Cardiac arrest                                  |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Tachycardia                                     |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Nervous system disorders                        |                 |                 |                 |

|   |                 |                 |                 |
|---|-----------------|-----------------|-----------------|
| Epilepsy  |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Idiopathic intracranial hypertension            |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 0           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Seizure   |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 0           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Gastrointestinal disorders                      |                 |                 |                 |
| Abdominal pain                                  |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Abdominal pain lower                            |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Oesophageal ulcer                               |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Salivary gland calculus                         |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Hepatobiliary disorders                         |                 |                 |                 |
| Cholelithiasis                                  |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 2 / 729 (0.27%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 2           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |

|   |                 |                 |                 |
|---|-----------------|-----------------|-----------------|
| Renal and urinary disorders                     |                 |                 |                 |
| Renal colic                                     |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 2           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Renal impairment                                |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Ureterolithiasis                                |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Musculoskeletal and connective tissue disorders |                 |                 |                 |
| Intervertebral disc protrusion                  |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Infections and infestations                     |                 |                 |                 |
| Appendicitis                                    |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Appendicitis perforated                         |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Breast abscess                                  |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 0           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| COVID-19 pneumonia                              |                 |                 |                 |

|   |                 |                 |                 |
|---|-----------------|-----------------|-----------------|
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Cellulitis                                      |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Epstein-Barr virus infection                    |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Infection                                       |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Pharyngotonsillitis                             |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 1 / 729 (0.14%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 1           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Pneumonia                                       |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 2 / 729 (0.27%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 2           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Pyelonephritis                                  |                 |                 |                 |
| subjects affected / exposed                     | 0 / 728 (0.00%) | 0 / 729 (0.00%) | 1 / 732 (0.14%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 0           | 0 / 1           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Pyelonephritis acute                            |                 |                 |                 |
| subjects affected / exposed                     | 1 / 728 (0.14%) | 0 / 729 (0.00%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1           | 0 / 0           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |
| Urinary tract infection                         |                 |                 |                 |

|   |                 |                 |                 |
|---|-----------------|-----------------|-----------------|
| subjects affected / exposed                     | 0 / 728 (0.00%) | 2 / 729 (0.27%) | 0 / 732 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0           | 0 / 2           | 0 / 0           |
| deaths causally related to treatment / all      | 0 / 0           | 0 / 0           | 0 / 0           |

Frequency threshold for reporting non-serious adverse events: 5 %

| <b>Non-serious adverse events</b>                     | V160 3-Dose Group  | V160 2-Dose Group  | Placebo Group      |
|---|--------------------|--------------------|--------------------|
| Total subjects affected by non-serious adverse events |                    |                    |                    |
| subjects affected / exposed                           | 697 / 728 (95.74%) | 700 / 729 (96.02%) | 557 / 732 (76.09%) |
| Nervous system disorders                              |                    |                    |                    |
| Headache  |                    |                    |                    |
| subjects affected / exposed                           | 434 / 728 (59.62%) | 450 / 729 (61.73%) | 368 / 732 (50.27%) |
| occurrences (all)                                     | 988                | 976                | 795                |
| General disorders and administration site conditions  |                    |                    |                    |
| Fatigue   |                    |                    |                    |
| subjects affected / exposed                           | 457 / 728 (62.77%) | 461 / 729 (63.24%) | 357 / 732 (48.77%) |
| occurrences (all)                                     | 1128               | 1077               | 843                |
| Injection site erythema                               |                    |                    |                    |
| subjects affected / exposed                           | 254 / 728 (34.89%) | 208 / 729 (28.53%) | 30 / 732 (4.10%)   |
| occurrences (all)                                     | 400                | 273                | 39                 |
| Injection site pain                                   |                    |                    |                    |
| subjects affected / exposed                           | 680 / 728 (93.41%) | 664 / 729 (91.08%) | 239 / 732 (32.65%) |
| occurrences (all)                                     | 1943               | 1524               | 374                |
| Injection site pruritus                               |                    |                    |                    |
| subjects affected / exposed                           | 44 / 728 (6.04%)   | 26 / 729 (3.57%)   | 4 / 732 (0.55%)    |
| occurrences (all)                                     | 54                 | 34                 | 5                  |
| Injection site swelling                               |                    |                    |                    |
| subjects affected / exposed                           | 248 / 728 (34.07%) | 233 / 729 (31.96%) | 21 / 732 (2.87%)   |
| occurrences (all)                                     | 404                | 311                | 26                 |
| Pyrexia   |                    |                    |                    |
| subjects affected / exposed                           | 75 / 728 (10.30%)  | 90 / 729 (12.35%)  | 27 / 732 (3.69%)   |
| occurrences (all)                                     | 93                 | 112                | 42                 |
| Gastrointestinal disorders                            |                    |                    |                    |
| Nausea  |                    |                    |                    |
| subjects affected / exposed                           | 45 / 728 (6.18%)   | 55 / 729 (7.54%)   | 46 / 732 (6.28%)   |
| occurrences (all)                                     | 50                 | 68                 | 54                 |



|   |                    |                    |                    |
|---|--------------------|--------------------|--------------------|
| Respiratory, thoracic and mediastinal disorders |                    |                    |                    |
| Oropharyngeal pain                              |                    |                    |                    |
| subjects affected / exposed                     | 62 / 728 (8.52%)   | 65 / 729 (8.92%)   | 69 / 732 (9.43%)   |
| occurrences (all)                               | 81                 | 80                 | 80                 |
| Musculoskeletal and connective tissue disorders |                    |                    |                    |
| Arthralgia                                      |                    |                    |                    |
| subjects affected / exposed                     | 162 / 728 (22.25%) | 162 / 729 (22.22%) | 76 / 732 (10.38%)  |
| occurrences (all)                               | 226                | 249                | 121                |
| Myalgia   |                    |                    |                    |
| subjects affected / exposed                     | 455 / 728 (62.50%) | 424 / 729 (58.16%) | 200 / 732 (27.32%) |
| occurrences (all)                               | 996                | 818                | 336                |
| Infections and infestations                     |                    |                    |                    |
| Nasopharyngitis                                 |                    |                    |                    |
| subjects affected / exposed                     | 53 / 728 (7.28%)   | 53 / 729 (7.27%)   | 37 / 732 (5.05%)   |
| occurrences (all)                               | 59                 | 56                 | 40                 |

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date              | Amendment   |
|-------------------|---|
| 20 September 2018 | Updated protocol procedures for clarification.  |
| 11 June 2019      | Updated congenital cytomegalovirus infection (cCMVi) case definition, clarified the infant sample collection strategy, and adjusted visit schedules to be more accommodating and maintain more contact with study participants. |

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

None reported