Supplemental Table 1: Boca Biolistics sample panel

|                     | Sampled prior to vaccination | Sampled after first dose | Sampled ≥ 14 days after second dose | Sub-total |
|---------------------|-----------------------------|--------------------------|-------------------------------------|-----------|
| Moderna             | 8*                          | 5†                       | 19                                  | 24        |
| Pfizer-BioNTech     | 8                           | 34                       |                                     | 42        |
| Sub-total           | 13                          | 53                       |                                     | 66        |
| Total samples       | 74                          |                          |                                     |           |

*2 samples came from donors who were previously diagnosed with COVID-19 (known infection, unknown whether diagnosis was PCR-confirmed). Diagnosis was 3 months prior to the date of the first draw for one individual and 6 months for the second individual.

†Duplicate samples from the same donor, taken at the same visit, were available – only the first sample was used in analyses.
Supplemental Table 2: Interpretation of SARS-CoV-2 Rapid Antibody Test for semi-quantitative analysis

| Result  | Symbol* | Description                                                                 |
|---------|---------|-----------------------------------------------------------------------------|
| IgM positive | ((+)), (+), +, ++, +++ | - Control line and IgM signal line both visible  
- Faint signal lines are rated as positive  
- Signal intensity will be assessed using the color scale |
| IgG positive | ((+)), (+), +, ++, +++ | - Control line and IgG signal line both visible  
- Faint signal lines are rated as positive  
- Signal intensity will be assessed using the color scale |
| Negative | - | - Control line visible  
- No signal line |
| Invalid | / | - No control line  
- Unusual background of the test strip  
- Further reasons |

*Daylight lamps were used to assist the visual interpretation of the bands.*
Results from the SARS-CoV-2 Rapid Antibody Test were classified as invalid, negative or one of the five levels of increasing positivity based upon line intensity

(((+)), (+), +, ++ or +++)


Supplemental Table 3: Agreement between SARS-CoV-2 Rapid Antibody Test (IgG and IgM) and Elecsys Anti-SARS-CoV-2 S assay (reference test) qualitative measurements, as measured by lot and evaluator for in-house negative panel

|        | Evaluator 1 | Evaluator 2 |
|--------|-------------|-------------|
|        | Lot 1 | Lot 2 | Lot 1 | Lot 2 |
| IgG    |       |       |       |       |
| N      | 15    | 15    | 15    | 15    |
| N -    | 15    | 15    | 15    | 15    |
| FP     | 0     | 0     | 0     | 0     |
| TN     | 15    | 15    | 15    | 15    |
| NPA, % | 100   | 100   | 100   | 100   |
| lower CI | 78.2 | 78.2  | 78.2  | 78.2  |
| upper CI | 100  | 100   | 100   | 100   |
| IgM    |       |       |       |       |
| N      | 15    | 15    | 15    | 15    |
| N -    | 15    | 15    | 15    | 15    |
| FP     | 0     | 0     | 0     | 0     |
| TN     | 15    | 15    | 15    | 15    |
| NPA, % | 100   | 100   | 100   | 100   |
| lower CI | 78.2 | 78.2  | 78.2  | 78.2  |
| upper CI | 100  | 100   | 100   | 100   |

-, negative by the reference test (Elecsys Anti-SARS-CoV-2 S assay); CI, 95% confidence intervals; FP, false-positive; TN, true-negative; NPA, negative percent agreement
Supplemental Table 4. Kendall’s correlation between the SARS-CoV-2 Rapid Antibody Test semi-quantitative results and the Elecsys Anti-SARS-CoV-2 S total antibody titer for samples from individuals vaccinated with Moderna mRNA-1273 or Pfizer-BioNTech BNT162b2 (the analysis includes only those who have had two doses). Moderna: n=19 for each lot/evaluator. Pfizer: n=34 for each lot/evaluator. Significant p-values indicated in red.

|                     | mRNA-1273 |       |             | BNT162b2 |       |
|---------------------|-----------|-------|-------------|----------|-------|
|                     | p-value   |       |             | p-value  |       |

| mRNA-1273          |           |       |             |          |       |
|---------------------|-----------|-------|-------------|----------|-------|
| **IgM**             |           |       |             |          |       |
| Elecsys_Quant       | Rapid AB test, Lot 1 Evaluator 1 | -0.0875 | 0.6541      |          |       |
|                     | Rapid AB test, Lot 1 Evaluator 2 | 0.1101  | 0.5722      |          |       |
|                     | Rapid AB test, Lot 2 Evaluator 1 | -0.0875 | 0.6541      |          |       |
|                     | Rapid AB test, Lot 2 Evaluator 2 | 0.0097  | 0.9603      |          |       |
| **IgG**             |           |       |             |          |       |
| Elecsys_Quant       | Rapid AB test, Lot 1 Evaluator 1 | 0.5729  | 0.0029      |          |       |
|                     | Rapid AB test, Lot 1 Evaluator 2 | 0.3712  | 0.0479      |          |       |
|                     | Rapid AB test, Lot 2 Evaluator 1 | 0.599   | 0.0019      |          |       |
|                     | Rapid AB test, Lot 2 Evaluator 2 | 0.3009  | 0.1103      |          |       |

| BNT162b2            |           |       |             |          |       |
|---------------------|-----------|-------|-------------|----------|-------|
| **IgM**             |           |       |             |          |       |
| Elecsys_Quant       | Rapid AB test, Lot 1 Evaluator 1 | 0.1126  | 0.4304      |          |       |
|                     | Rapid AB test, Lot 1 Evaluator 2 | 0.1977  | 0.1667      |          |       |
|                     | Rapid AB test, Lot 2 Evaluator 1 | 0.1021  | 0.4718      |          |       |
|                     | Rapid AB test, Lot 2 Evaluator 2 | 0.0933  | 0.5136      |          |       |
| IgG          |                                 |        |        |
|--------------|---------------------------------|--------|--------|
| Elecsys_Quant| Rapid AB test, Lot 1 Evaluator 1| 0.6833 | <0.0001|
| Elecsys_Quant| Rapid AB test, Lot 1 Evaluator 2| 0.4075 | 0.0035 |
| Elecsys_Quant| Rapid AB test, Lot 2 Evaluator 1| 0.5881 | <0.0001|
| Elecsys_Quant| Rapid AB test, Lot 2 Evaluator 2| 0.5956 | <0.0001|

Elecsys, Elecsys Anti-SARS-CoV-2 S assay; Quant, quantitative; Rapid AB test, SARS-CoV-2 Rapid Antibody Test
Supplemental Figure 1: Forest plot showing accuracy for SARS-CoV-2 Rapid Antibody Test (IgG), lot-to-lot and evaluator-to-evaluator, after vaccination with Moderna mRNA-1273 or Pfizer-BioNTech BNT162b2.

The horizontal line represents the 95% confidence intervals of the point estimate. Overall represents the combined accuracy data for mRNA-1273 and BNT162b2. Ev, evaluator.
Supplemental Figure 2: Forest plot showing accuracy estimates for SARS-CoV-2 Rapid Antibody Test (IgM), lot-to-lot and evaluator-to-evaluator, after vaccination with Moderna mRNA-1273 of Pfizer-BioNTech BNT162b2.

The horizontal line represents the 95% confidence intervals of the point estimate. Overall represents the combined accuracy data for mRNA-1273 and BNT162b2. Ev, evaluator.
Supplemental Figure 3: Longitudinal analysis of Elecsys Anti-SARS-CoV-2 S assay total antibody titers in individuals with serial samples available after vaccination with Pfizer-BioNTech BNT162b2

Blue color represents those individuals diagnosed with COVID-19 prior to vaccination.
| Section & Topic | No | Item                                                                 | Reported on page # |
|-----------------|----|----------------------------------------------------------------------|-------------------|
| TITLE OR ABSTRACT | 1  | Identification as a study of diagnostic accuracy using at least one measure of accuracy (such as sensitivity, specificity, predictive values, or AUC) | 2 (agreement)     |
| ABSTRACT        | 2  | Structured summary of study design, methods, results, and conclusions (for specific guidance, see STARD for Abstracts) | 1/2               |
| INTRODUCTION    | 3  | Scientific and clinical background, including the intended use and clinical role of the index test | 4/5               |
|                 | 4  | Study objectives and hypotheses                                       | 5                 |
| METHODS         | 5  | Whether data collection was planned before the index test and reference standard were performed (prospective study) or after (retrospective study) | 5                 |
| Study design    | 6  | Eligibility criteria                                                  | 6                 |
|                 | 7  | On what basis potentially eligible participants were identified (such as symptoms, results from previous tests, inclusion in registry) | 6                 |
|                 | 8  | Where and when potentially eligible participants were identified (setting, location and dates) | 6                 |
|                 | 9  | Whether participants formed a consecutive, random or convenience series | NA                |
| Test methods    | 10a| Index test, in sufficient detail to allow replication                 | 7 + Supplemental Table 2 |
|                 | 10b| Reference standard, in sufficient detail to allow replication         | 7                 |
|                 | 11 | Rationale for choosing the reference standard (if alternatives exist)  | NA                |
|                 | 12a| Definition of and rationale for test positivity cut-offs or result categories of the index test, distinguishing pre-specified from exploratory | 7                 |
|                 | 12b| Definition of and rationale for test positivity cut-offs or result categories of the reference standard, distinguishing pre-specified from exploratory | 7                 |
|                 | 13a| Whether clinical information and reference standard results were available to the performers/readers of the index test | 6/8               |
|                 | 13b| Whether clinical information and index test results were available to the assessors of the reference standard | 6/8               |
| Analysis        | 14 | Methods for estimating or comparing measures of diagnostic accuracy    | 8                 |
|                 | 15 | How indeterminate index test or reference standard results were handled | 7                 |
|                 | 16 | How missing data on the index test and reference standard were handled | 7                 |
|                 | 17 | Any analyses of variability in diagnostic accuracy, distinguishing pre-specified from exploratory | 8                 |
| RESULTS         | 18 | Intended sample size and how it was determined                        | 6                 |
| Participants    | 19 | Flow of participants, using a diagram                                 | NA                |
|   | Baseline demographic and clinical characteristics of participants | 8 + 26/27 (Table 1) |
|---|---------------------------------------------------------------|---------------------|
| 20 | Distribution of severity of disease in those with the target condition | NA |
| 21a | Distribution of alternative diagnoses in those without the target condition | NA |
| 21b | Time interval and any clinical interventions between index test and reference standard | NA |
| 22 | Cross tabulation of the index test results (or their distribution) by the results of the reference standard | 28/29 (Table 2) |
| 23 | Estimates of diagnostic accuracy and their precision (such as 95% confidence intervals) | 28/29 (Table 2) |
| 24 | Any adverse events from performing the index test or the reference standard | NA |
| 25 | Study limitations, including sources of potential bias, statistical uncertainty, and generalisability | 14 |
| 26 | Implications for practice, including the intended use and clinical role of the index test | 14/15 |
| 27 | Registration number and name of registry | NA |
| 28 | Where the full study protocol can be accessed | NA |
| 29 | Sources of funding and other support; role of funders | NA |