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2.3.A.1 FACILITIES AND EQUIPMENT

2.3.A.1.1 Aldevron, LLC

Aldevron, LLC (Aldevron), a contract manufacturing organization, produces plasmid DNA (pDNA) according to cGMP for Moderna's mRNA-1273 program. The Aldevron GMP facility is located at 4055 41^{st} Avenue South, Fargo, North Dakota 58104. The facility produces multiple cGMP-compliant products, including plasmid and recombinant proteins from *E. coli* and synthetic RNA from in vitro transcription. A Letter of Authorization for the Type V Drug Master File ^{(b) (4)} for the Lonza Biologics, Inc. Portsmouth, NH Cell Therapy Manufacturing Facility is provided in Section 1.4.2.

See 3.2.A.1 {Aldevron} for additional detail.

2.3.A.1.2 Baxter

The formulation and filling of the DP are performed at Baxter Pharmaceutical Solutions (also referred to as Baxter) facility located at 927 S. Curry Pike, Bloomington, Indiana, USA 47403. (b) (4)

See 3.2.A.1 {Baxter} for additional detail.

2.3.A.1.3 Corden Pharma Colorado

Corden Pharma Colorado (Boulder, CO, USA) manufactures (b) (4)

See 3.2.A.1 {Corden Pharma Colorado} for additional detail.

2.3.A.1.4 Corden Pharma Liestal

Corden Pharma Switzerland LLC (Liestal, Switzerland) manufactures ^{(b) (4)} (b) (4) See 3.2.A.1 {Corden Pharma Liestal} for additional detail.

2.3.A.1.5 Catalent

Catalent Indiana, LLC (Catalent) is a contract manufacturing organization (CMO) offering development and commercial manufacturing services for pharmaceutical bulk drug substances, finished product and medical devices. Catalent Indiana, LLC is a wholly owned indirect subsidiary of Catalent Pharma Solution, Inc. A Letter of Authorization for the Type V Drug Master File (DMF# 024888) for the Catalent Indiana, LLC facility is provided in Section 1.4.2.

Catalent is located at: 1300 South Patterson Drive Bloomington, Indiana 47403 USA

See 3.2.A.1 {Catalent} for additional detail.

2.3.A.1.6 Lonza Biologics, Inc

Lonza Biologics, Inc. in Portsmouth, NH manufactures the $^{(b)}(4)$ CX-024414 mRNA, $^{(b)}(4)$ and $^{(b)}(4)$ mRNA-1273 LNP drug substances in the Cell Therapy facility, as a contract manufacturer under a Quality Agreement with ModernaTX, Inc. A Letter of Authorization for the Type V Drug Master File ($^{(b)}(4)$) for the Lonza Biologics, Inc. Portsmouth, NH Cell Therapy Manufacturing Facility is provided in Section 1.4.2. Lonza Biologics, Inc. Portsmouth is located at:

> 101 International Drive Portsmouth, NH 03801 USA

See 3.2.A.1 {Lonza} for additional detail.

2.3.A.1.7 Moderna TX, Inc (Norwood)

ModernaTX, Inc.'s Manufacturing Technology Center's multi-product manufacturing and testing site (for mRNA based products) is located at One Moderna Way, Norwood, MA, USA 02062 and produces mRNA and lipid nanoparticle (LNP) (DUNS identification number 116912313). In addition to producing mRNA 1273 drug substance (CX-024414, ^{(b) (4)} and mRNA-1273 LNP) in Moderna's multiproduct facility, Moderna also manufactures the following mRNA

based clinical products that are not yet approved by FDA or other regulatory agencies: plasmid, mRNA, formulated lipid nanoparticle, drug product and personalized cancer vaccine.

See 3.2.A.1 {Norwood} for additional detail.

2.3.A.2 ADVENTITIOUS AGENTS

There are no materials of animal or human origin used in the manufacture of the CX-024414 mRNA, ^{(b) (4)} mRNA-1273 LNP or mRNA-1273 Drug Product.

2.3.A.3 NOVEL EXCIPIENTS

There are no novel excipients used in the manufacture of the Drug Product.