UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Moderna Therapeutics, Inc.

Petitioner

v.

Protiva Biotherapeutics, Inc.

Patent Owner

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U.S. Patent No. 9,364,435

Issued: June 14, 2016

Named Inventor: Edward Yaworski, Kieu Lam, Lloyd Jeffs, Lorne Palmer, Ian MacLachlan

Title: Lipid Formulations for Nucleic Acid Delivery

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PETITION FOR *INTER PARTES* REVIEW

OF U.S. PATENT NO. 9,364,435

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d) Claim element 1(d): a non-cationic lipid comprising from 13 mol% to 49.5 mol% of the total lipid present in the particle 38

e) Claim element 1(e): a conjugated lipid that inhibits aggregation of particles comprising from 0.5 mol% to 2 mol% of the total lipid present in the particle. 39

2. Claim 2: the nucleic acid-lipid particle of claim 1, wherein the nucleic acid comprises an interfering RNA, mRNA, an anti-sense oligonucleotide, a ribozyme, a plasmid, an immunostimulatory oligonucleotide, or mixtures thereof 40

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