



3,678,031 shares of common stock

Pre-funded warrants to purchase 2,200,000 shares of common stock

2,200,000 shares of common stock underlying pre-funded warrants

This free writing prospectus relates only to the offering described below and should be read together with the preliminary [prospectus supplement dated November 12, 2019](#) (the "Preliminary Prospectus Supplement"), including the documents incorporated by reference therein and the accompanying base prospectus. This free writing prospectus supplements the Preliminary Prospectus Supplement primarily to reflect the addition of certain pre-funded warrants to the securities being offered by Replimune Group, Inc. Except as otherwise indicated, all information in this free writing prospectus and the Preliminary Prospectus Supplement assumes no exercise of outstanding options, no exercise of the underwriters' option to purchase additional shares of our common stock and no exercise of the pre-funded warrants.

This free writing prospectus is qualified in its entirety by reference to the Preliminary Prospectus Supplement. Financial information and other information presented in the Preliminary Prospectus Supplement or incorporated by reference therein is deemed to have changed to the extent affected by the changes described herein. This free writing prospectus should be read together with the Preliminary Prospectus Supplement, including the documents incorporated by reference therein, and the accompanying prospectus before making a decision in connection with an investment in the securities. Capitalized terms used in this free writing prospectus but not defined have the meanings given to them in the Preliminary Prospectus Supplement.

Issuer: Replimune Group, Inc.

Common stock we are offering: 3,678,031 shares

Pre-funded warrants offered by us: We are also offering, in lieu of common stock, pre-funded warrants to purchase 2,200,000 shares of our common stock. The purchase price of each pre-funded warrant will equal the price per share at which the shares of our common stock are being sold to the public in this offering, minus \$0.0001, and the exercise price of each pre-funded warrant is \$0.0001 per share. Each pre-funded warrant will be exercisable at any time after the date of issuance, subject to an ownership limitation. See "Description of pre-funded warrants." This free writing prospectus and the Preliminary Prospectus Supplement also relate to the offering of the shares of our common stock issuable upon exercise of the pre-funded warrants.

The lock-up restrictions described in the Preliminary Prospectus Supplement under "Underwriting" will not apply to the exercise of the pre-funded warrants during the 90 day period following the date of Preliminary Prospectus Supplement.

Underwriters' option to purchase additional shares: We have granted the underwriters an option for a period of 30 days, to purchase up to 881,704 additional shares of our common stock. The number of shares subject to the underwriters' option equals 15% of the total number of shares of common stock we are offering plus the shares underlying the pre-funded warrants.

Dilution: After giving effect to the sale of 3,678,031 shares of our common stock and pre-funded warrants to purchase up to 2,200,000 shares of our common stock at the public offering price of \$ per share of our common stock and \$ per pre-funded warrant (which equals the public offering price per share of our common stock less the \$0.0001 per share exercise price of each such pre-funded warrant) (and excluding shares of our common stock issued and any proceeds received upon exercise of the pre-funded warrants or any

resulting accounting associated with the pre-funded warrants) and after deducting underwriter commissions, and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2019 would have been approximately \$ million, or \$ per share. This represents an immediate increase in net tangible book value of \$ per share to existing stockholders and immediate dilution of \$ per share to investors purchasing our common stock or pre-funded warrants in this offering at the public offering price.

Listing

Shares of our common stock are listed on the Nasdaq Global Select Market under the symbol “REPL.” We do not intend to list the pre-funded warrants on the Nasdaq Global Select Market, any other nationally recognized securities exchange or any other nationally recognized trading system.

Risk factors

There is no public market for the pre-funded warrants being offered in this offering.

There is no public trading market for the pre-funded warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the pre-funded warrants on any securities exchange or nationally recognized trading system, including the Nasdaq Global Select Market. Without an active market, the liquidity of the pre-funded warrants will be limited.

We may not receive any additional funds upon the exercise of the pre-funded warrants.

Each pre-funded warrant may be exercised by way of a cashless exercise, meaning that the holder may not pay a cash purchase price upon exercise, but instead would receive upon such exercise the net number of shares of our common stock determined according to the formula set forth in the pre-funded warrant. Accordingly, we may not receive any additional funds upon the exercise of the pre-funded warrants.

Holders of pre-funded warrants purchased in this offering will have no rights as holders of our common stock until such holders exercise their pre-funded warrants and acquire our common stock.

Until holders of pre-funded warrants acquire shares of our common stock upon exercise of the pre-funded warrants, holders of pre-funded warrants will have no rights with respect to the shares of our common stock underlying such pre-funded warrants including with respect to dividends and voting rights. Upon exercise of the pre-funded warrants, the holders will be entitled to exercise the rights of a holder of our common stock only as to matters for which the record date occurs after the exercise date.

Significant holders or beneficial holders of our common stock may not be permitted to exercise pre-funded warrants that they hold.

A holder of a pre-funded warrant will not be entitled to exercise any portion of any pre-funded warrant which, upon giving effect to such exercise, would cause (i) the aggregate number of shares of our common stock beneficially owned by the holder (together with its affiliates) to exceed 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, or (ii) the combined voting power of our securities beneficially owned by the holder (together with its affiliates) to exceed 9.99% of the combined voting power of all of our securities then outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. As a result, you may not be able to exercise your pre-funded warrants for shares of our common stock at a time when it would be financially beneficial for you to do so. In such circumstance you could seek to sell your pre-funded warrants to realize value, but you may be unable to do so in the absence of an established trading market for the pre-funded warrants.

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

You will suffer immediate and substantial dilution in the as adjusted net tangible book value of the common stock you purchase in this offering. The public offering price per share offered pursuant to this prospectus supplement is substantially higher than the net tangible book value per share. Accordingly, at the public offering price of \$ _____ per share, purchasers of common stock in this offering will experience immediate dilution of \$ _____ per share in as adjusted net tangible book value of the common stock. In addition, as of September 30, 2019, there were 4,739,336 shares subject to outstanding options at a weighted average exercise price per share of \$9.16 and 497,344 shares subject to outstanding warrants at a weighted average exercise price of \$1.01 per share. To the extent that additional shares of common stock are issued upon exercise of these outstanding warrants or options or the underwriters exercise their option to purchase additional shares in connection with this offering, you may incur further dilution. Furthermore, if the pre-funded warrants offered hereby are exercised, you could experience further dilution. See “Dilution” in the Preliminary Prospectus Supplement for a more detailed discussion of the dilution you will incur if you purchase shares of common stock in this offering.

Use of proceeds

We estimate that the net proceeds from the sale of 3,678,031 shares of common stock at a public offering price of \$ _____ per share and pre-funded warrants to purchase 2,200,000 shares of common stock at a public offering price of \$ _____ per pre-funded warrant (which equals the public offering price per share of our common stock less the \$0.0001 per share exercise price of each such pre-funded warrant) (and excluding shares of our common stock issued and any proceeds received upon exercise of the pre-funded warrants or any resulting accounting associated with the pre-funded warrants) will be approximately \$ _____ million, or approximately \$ _____ million if the underwriters exercise their option to purchase additional shares of common stock in full at the public offering price of \$ _____ per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We will receive nominal proceeds, if any, upon exercise of the pre-funded warrants.

We currently expect to use the net proceeds from this offering, together with our existing cash and cash equivalents and short-term investments, as follows:

- to fund the development of RP1 through the completion of the ongoing Phase 1/2 clinical trial in four solid tumor types;
- to fund our share of the costs of the Phase 2 clinical trial with RP1 in CSCC;
- to fund a clinical trial of RP1 in cutaneous melanoma in patients refractory to anti-PD-1 therapy;
- to fund a clinical trial in transplant patients that have developed CSCC;
- to fund initial clinical development with RP2 and RP3; and
- the remainder for general corporate purposes, including working capital requirements and operating expenses.

This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. As of the date of this free writing prospectus, we cannot predict with certainty all of the particular uses for the net proceeds from this offering or the amounts that we will actually spend on the uses set forth above. The amount and timing of our actual expenditures depend on

several factors, including the progress and results of our research and development efforts, the amount of cash used by our operations, and the other factors described under “Risk factors” herein and in the Preliminary Prospectus Supplement. Pending application of the net proceeds, we may invest the net proceeds from this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

Description of pre-funded warrants

The following is a brief summary of certain terms and conditions of the pre-funded warrants being offered by us. The following description is subject in all respects to the provisions contained in the pre-funded warrants.

Form

The pre-funded warrants will be issued as individual warrant agreements to each individual purchaser of a warrant. The form of pre-funded warrant will be filed as an exhibit to a Current Report on Form 8-K that we will file with the SEC.

Term

The pre-funded warrants do not expire.

Exercisability

The pre-funded warrants are exercisable at any time after their original issuance. The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice and by payment in full of the exercise price in immediately available funds for the number of shares of our common stock purchased upon such exercise. As an alternative to payment of the exercise price in immediately available funds, the holder may elect to exercise the pre-funded warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of our common stock determined according to the formula set forth in the pre-funded warrant. No fractional shares of our common stock will be issued in connection with the exercise of a pre-funded warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the last closing trading price of our common stock on the exercise date.

Exercise limitations

Under the pre-funded warrants, we may not effect the exercise of any pre-funded warrant, and a holder will not be entitled to exercise any portion of any pre-funded warrant, which, upon giving effect to such exercise, would cause (i) the aggregate number of shares of our common stock beneficially owned by the holder (together with its affiliates) to exceed 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, or (ii) the combined voting power of our securities beneficially owned by the holder (together with its affiliates) to exceed 9.99% of the combined voting power of all of our securities then outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. However, any holder may increase or decrease such percentage to any other percentage upon at least 61 days' prior notice from the holder to us.

Exercise price

The exercise price per whole share of our common stock purchasable upon the exercise of the pre-funded warrants is \$0.0001 per share of our common stock. The exercise price of the pre-funded warrants and the number of shares of our common stock issuable upon exercise of the pre-funded warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any

distributions of assets, including cash, stock or other property to our stockholders. The exercise price will not be adjusted below the par value of our common stock.

Transferability

Subject to applicable laws, the pre-funded warrants may be offered for sale, sold, transferred or assigned without our consent. The pre-funded warrants will be held in definitive form by the warrant agent. The ownership of the pre-funded warrants and any transfers of the pre-funded warrants will be registered in a warrant register maintained by the warrant agent. We will initially act as warrant agent.

Exchange listing

We do not plan on applying to list the pre-funded warrants on The Nasdaq Global Select Market, any other national securities exchange or any other nationally recognized trading system.

Fundamental transactions

In the event of a fundamental transaction, as described in the pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding our common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, upon consummation of such a fundamental transaction, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction without regard to any limitations on exercised contained in the pre-funded warrants.

No rights as a stockholder

Except by virtue of such holder's ownership of shares of our common stock, the holder of a pre-funded warrant does not have the rights or privileges of a holder of our common stock, including any voting rights or the rights to receive dividends, until the holder exercises the pre-funded warrant.

Material United States federal income tax considerations for non-U.S. holders

Although it is not entirely free from doubt, a pre-funded warrant should be treated as a share of our common stock for U.S. federal income tax purposes and a holder of a pre-funded warrants should generally be taxed in the same manner as a holder of common stock. Accordingly, no gain or loss should be recognized upon the exercise of a pre-funded warrant and, upon exercise, the holding period of a pre-funded warrant should carry over to the share of common stock received. Similarly, the tax basis of a pre-funded warrant should carry over to the share of common stock received upon exercise, increased by the exercise price of \$0.0001 per share. Each holder should consult his, her or its own tax advisor regarding the risks associated with the acquisition of pre-funded warrants pursuant to this offering (including potential alternative characterizations).

Underwriting

The underwriters will purchase the pre-funded warrants pursuant to the underwriting agreement described in the Preliminary Prospectus Supplement on terms generally consistent with those applicable to the shares of common stock being sold in the offering. The per share underwriting discounts and commissions for the pre-funded warrants will be equal to the per share underwriting discounts and commissions on the shares of our common stock sold in the offering.

General

Additional conforming changes are hereby made to the Preliminary Prospectus Supplement to reflect the changes described in this free writing prospectus. All terms of the Preliminary Prospectus Supplement applicable to our common stock will be applicable to the shares underlying the pre-funded warrants upon issuance.

The Issuer has filed a registration statement (including a preliminary prospectus supplement dated November 12, 2019 and the accompanying base prospectus) with SEC, for the offering to which this communication relates. Before you invest, you should read the preliminary prospectus supplement and the accompanying base prospectus and other documents the Issuer has filed with the SEC for more complete information about the Issuer and the offering. You may get these documents for free by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, copies may be obtained from: J.P. Morgan Securities LLC, Attention: Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, NY 11717, by telephone at (866) 803-9204, or by e-mail at prospectus-eq_fi@jpmorgan.com; SVB Leerink LLC, Attention: Syndicate Department, One Federal Street, 37th Floor, Boston, MA 02110, by telephone at (800) 808-7525, ext. 6132, or by e-mail at syndicate@svbleerink.com; or BMO Capital Markets Corp., Attention: Equity Syndicate Department, 3 Times Square, 25th Floor, New York, NY 10036, by telephone at (800) 414-3627 or by e-mail at bmopropectus@bmo.com
