Igniting a Systemic Immune Response to Cancer

Replimune's mission is to revolutionize cancer treatment with therapies designed to activate a powerful and durable full-body anti-tumor response. We imagine a world where cancer is a curable disease.
Safe harbor

Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding the advancement, timing and sufficiency of our clinical trials, patient enrollments in our existing and planned clinical trials and the timing thereof, the results of our clinical trials, the timing and release of our clinical data, statements regarding our expectations about our cash runway, our goals to develop and commercialize our product candidates, our expectations regarding the size of the patient populations for our product candidates if approved for commercial use and other statements identified by words such as “could,” “expects,” “intends,” “may,” “plans,” “potential,” “should,” “will,” “would,” or similar expressions and the negatives of those terms. Forward-looking statements are not promises or guarantees of future performance, and are subject to a variety of risks and uncertainties, many of which are beyond our control, and which could cause actual results to differ materially from those contemplated in such forward-looking statements. These factors include risks related to our limited operating history, our ability to generate positive clinical trial results for our product candidates, the costs and timing of operating our in-house manufacturing facility, the timing and scope of regulatory approvals, changes in laws and regulations to which we are subject, competitive pressures, our ability to identify additional product candidates, political and global macro factors including the impact of the SARS-COV-2 coronavirus as a global pandemic and related public health issues, the ongoing military conflict between Russia and Ukraine and the impact on the global economy and related governmental imposed sanctions, and other risks as may be detailed from time to time in our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, and other reports we file with the Securities and Exchange Commission. Our actual results could differ materially from the results described in or implied by such forward-looking statements. Forward-looking statements speak only as of the date hereof, and, except as required by law, we undertake no obligation to update or revise these forward-looking statements.
Today’s speakers/Q&A panel

PHILIP ASTLEY-SPARKE
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Replimune

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Overview

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RP1: IGNYTE Melanoma Data Snapshot

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RP1 Commercial Opportunity

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RP2/3 Update
Overview

**Industry leader** in tumor directed oncolytic immunotherapy (TDOI) field

**Potential to be a cornerstone treatment** in immuno-oncology; 3 wholly owned programs (RP1-3)

**Major skin cancer franchise** planned with RP1; two studies ongoing with registrational intent
  - *Snapshot data from the IGNYTE clinical trial (anti-PD1 failed melanoma cohort with registrational intent) presented today*
    - First 75 patients with 6 months follow up* (target enrollment 125 patients)
    - 1L CSCC (CERPASS) randomized controlled trial, primary analysis expected to be presented 1H 2023; accrual complete (211 patients)

**Broad mid-stage development planned** with RP2/3
  - Several fast to market indications to be pursued to leverage commercial infrastructure

**Potential for the portfolio to deliver substantial commercial revenue** expected beginning in 2025

**Capitalized** to build a fully integrated global biotech company
  - US commercial infrastructure
  - In-house manufacturing facility established
  - Cash & investments of $372M as of 30 September 2022
Tumor directed oncolytic immunotherapy mechanism of action

1. Injected tumor
   - Oncolytic immunotherapy
   - Dysregulated host antiviral response allows robust virus replication and tumor lysis
   - Attenuated potent new clinical isolate of HSV-1 modified to express a fusogenic glycoprotein and immune stimulating proteins
   - Intact host antiviral response: Normal tissue remains undamaged
   - Healthy tissue
   - Tumor tissue

2. Immune response
   - Release of virus progeny
   - Local Inflammation
   - Tumor cell death and release of tumor antigens
   - Altering of tumor microenvironment
   - Enhanced T cell priming and activation
   - T cell infiltration and killing of distant, un.injected tumors
   - Generating a strong and durable systemic anti-tumor immune response
   - Infection of more tumor cells

Bommareddy PK et al AJCD. 2016
# RPx positioning: Platform designed to address a range of tumor types with an optimal balance of potency & safety

<table>
<thead>
<tr>
<th>Payloads</th>
<th>Target</th>
<th>Intended indication(s)</th>
<th>Clinical activity in anti-PD1 failed patients demonstrated</th>
<th>Safety &amp; good tolerability demonstrated</th>
<th>Injection location</th>
<th>Systemic activity</th>
<th>Other design considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP1: GALV-GP R-, GM-CSF</td>
<td>Immunologically responsive tumor types, including anti-PD1 failed</td>
<td>Skin cancers (CSCC, anti-PD1 failed melanoma, anti-PD1 failed CSCC, other NMSCs, etc)</td>
<td>Yes</td>
<td>Yes</td>
<td>Superficial, nodal &amp; visceral</td>
<td>Clear systemic effects seen in responding patients (un-injected tumor responses, responses are generally highly durable)</td>
<td>Designed for more I-O sensitive tumor types with excellent safety alone &amp; in combination</td>
</tr>
<tr>
<td>RP2: GALV-GP R-, anti-CTLA-4, GM-CSF</td>
<td>Less immunologically responsive tumor types</td>
<td>Various solid tumor including primary liver cancers and/or those with a high prevalence of liver metastases e.g. HCC, CRC; Early disease (neoadjuvant/LA opportunities) e.g. SCCHN</td>
<td>Yes</td>
<td>Yes</td>
<td>Superficial, nodal &amp; visceral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RP3: GALV-GP R-, anti-CTLA-4, CD40L, 4-1BBL</td>
<td>Less immunologically responsive tumor types (anticipated further improved compared to RP2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ongoing

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Addressing “White Space” in the I-O landscape

<table>
<thead>
<tr>
<th>Skin Cancer</th>
<th>Relapsed/Refractory CPI failed Settings</th>
<th>1L-3L Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>IGNYTE anti-PD1-failed melanoma RP1 data -&gt; POC for RPx platform in this high unmet need setting unlocks potential opportunity in many other tumors</td>
<td>Remaining I-O “white space”</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Liver metastases unmet need across lines in multiple tumors -&gt; RP2/3 early promise where other I-Os have not shown benefit e.g., GI cancers such as CRC</td>
<td>Remaining I-O “white space”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Tumors</th>
<th>Remaining I-O “white space”</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCCHN, HCC and many other solid tumors where CPIs are SOC</td>
<td></td>
</tr>
</tbody>
</table>
**RP1 and 2: Phase I data summary in anti-PD1 failed cancers**

<table>
<thead>
<tr>
<th>Anti-PD1-failed melanoma (n=100)</th>
<th>Anti-PD1-failed NMSC* (n=12)</th>
<th>Anti-PD1-failed Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>~37.5% Overall response rate</td>
<td>~33% Overall response rate</td>
<td>Clinical responses in Phase 1 patients</td>
</tr>
<tr>
<td>Response to RP1 + Opdivo (n=16)</td>
<td>Response to RP1 + Opdivo (n=75)</td>
<td>with uveal melanoma, esophageal cancer &amp; SCCHN, all anti-PD1 failed</td>
</tr>
<tr>
<td><strong>36%</strong> Overall response rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response to RP1 + Opdivo (n=75)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>~44%</strong> Overall response rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response to RP2 + Opdivo (n=9)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*NMSC = Non melanoma skin cancer and includes CSCC, MCC, BCC and angiosarcoma
Roche collaboration validates our GI/liver approach

Replimune Enters into Clinical Collaboration Agreement with Roche for the Development of RP3 in Colorectal Cancer and Hepatocellular Carcinoma

RP3 will be developed in combination with atezolizumab and bevacizumab for the third-line treatment of colorectal cancer (CRC) and for the first- and second-line treatment of hepatocellular carcinoma (HCC)

Includes cost sharing for development in third-line CRC and second-line HCC

Update on the RP2/3 Phase 2 development plans to be provided by year end

Woburn, MA, December 7, 2022 — Replimune Group, Inc. (NASDAQ: REPL), a clinical-stage biotechnology company pioneering the development of a novel class of tumor-directed oncolytic immunotherapies, today announced that the company has entered into a Master Clinical Trial Collaboration and Supply Agreement with Roche. In this agreement, Replimune’s RP3 program will be studied in colorectal cancer (CRC) and hepatocellular carcinoma (HCC). Specifically, the companies will collaborate in third-line (3L) CRC and in first- and second-line (1L & 2L) HCC. Under the terms of the agreement, the companies will share costs for bevacizumab for 2L HCC and 3L CRC combined with RP3. Roche will supply atezolizumab and bevacizumab for 1L HCC combined with RP3, and for 3L CRC combined with RP2. Approximately 30 patients will be enrolled within each cohort. Replimune will have responsibility for operationalizing the clinical trial.

- Master Clinical Trial Collaboration and Supply Agreement with Roche to study RP3 in combination with Roche’s Tecentriq® (atezolizumab) and Avastin® (bevacizumab) for treatment of 1L & 2L HCC and 3L CRC

- In keeping with our philosophy of partnering with “the industry leaders” in indications where our oncolytic immunotherapies have the potential to become a key cornerstone of treatment

- REGN in CSCC, BMS in melanoma and Roche in HCC/CRC
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AGENDA
Overview of the current 2nd line melanoma landscape

• There are no good options for melanoma patients having progressed on anti-PD1 therapy (including patients who progressed on adjuvant anti-PD1 therapy)

• For patients who have not already received anti-CTLA-4 therapy, single agent Yervoy or Yervoy+Opdivo is an option
  • Expected response rate approx. 10%-30% for Yervoy or Yervoy/Opdivo combination, depending on the setting and whether prior progressive disease was confirmed, but with limited durability and high toxicity*

• To date, while approved in the 1L setting adding anti-LAG3 to anti-PD1 has not demonstrated meaningful efficacy in anti-PD1 failed melanoma patients (BMS & Regeneron data)

• For BRAF mutant patients, if not already BRAF/MEK experienced, BRAF targeted therapy is an option, but in general responses are transient

• TIL therapy (Iovance & others) has shown response rates in the 30% range, and may become FDA approved, but the treatment comes with considerable toxicity (nearly all patients experience grade 3/4 toxicity) and practicality considerations

Data snapshot in anti-PD1 failed melanoma

- First 75 patients from the 125 patient registration intended cohort of IGNYTE in anti-PD1 failed melanoma – at least 6 months follow up, median follow up 9.96 months

- ORR 36% across the population as a whole; CR rate 20%
  - Consistent with prior data in 16 anti-PD1 failed melanoma patients in the phase 2 melanoma cohort
  - Includes patients with moderate to high tumor burden of each type
  - Substantial majority of responses are in patients who did not respond to prior anti-PD1 therapy
  - Clinically meaningful ORR across all sub-groups analyzed i.e. by stage, setting and prior therapy

- 85% of responses are ongoing

- Responses seen in both injected and un-injected lesions
  - Impressive abscopal (un-injected) responses seen, including of visceral disease

- RP1 combined with Opdivo continues to be well-tolerated, with mainly Grade 1-2 “on target” side effects observed

- While PFS/OS data is immature, promising positive trends observed
Primary Objectives
- To assess the safety and tolerability of RP1 in combination with nivolumab
- To assess the efficacy of RP1 in combination with nivolumab as determined by ORR using modified RECIST 1.1 criteria

Secondary Objectives
To assess the efficacy of RP1 in combination with nivolumab as determined by DOR, CR rate, DCR, PFS, and 1-year and 2-year OS

Tumor response assessment
Radiographic imaging (CT) at baseline and every 8 weeks from first dose and every 12 weeks after confirmation of response

Key Eligibility
Advanced or metastatic non-neurological solid tumors without treatment options; at least 1 measurable and injectable lesion (≥ 1cm LD); adequate organ function; no prior treatment with oncolytic therapy. ECOG performance status (PS) 0-1.

Criteria for CPI-failed:
At least 8 weeks of prior anti-PD1, confirmed progression while on anti-PD1, anti-PD1 must be the last therapy before the clinical trial. Patients on prior adjuvant therapy must have progressed while on prior adjuvant treatment (confirmed by biopsy).
# Demographics

<table>
<thead>
<tr>
<th></th>
<th>Initial IGNYTE melanoma cohort</th>
<th>Anti-PD1 failed melanoma cohort first 75 patients</th>
<th>Combined N=91</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>anti-PD1 failed patients N=16</td>
<td>75 patients N=75</td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range/Median</td>
<td>28-78/60</td>
<td>31-91/60</td>
<td>28-91/60</td>
</tr>
<tr>
<td><strong>Sex, n (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>7 (43.8%)</td>
<td>22 (29.3%)</td>
<td>29 (31.9%)</td>
</tr>
<tr>
<td>Male</td>
<td>9 (56.3%)</td>
<td>53 (70.7%)</td>
<td>62 (68.1%)</td>
</tr>
<tr>
<td><strong>Prior Therapy, n (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Failed anti-PD1 but not also anti-CTLA-4</td>
<td>7 (43.8%)</td>
<td>52 (69.3%)</td>
<td>59 (64.8%)</td>
</tr>
<tr>
<td>Also failed anti-CTLA-4</td>
<td>9 (56.3%)</td>
<td>22 (29.3%)</td>
<td>31 (34.1%)</td>
</tr>
<tr>
<td>Also failed BRAF/MEK inhibition</td>
<td>0 (0.0%)</td>
<td>7 (9.3%)</td>
<td>7 (7.7%)</td>
</tr>
<tr>
<td>Also failed other therapy</td>
<td>4 (25.0%)</td>
<td>9 (12.0%)</td>
<td>13 (14.3%)</td>
</tr>
<tr>
<td>Received prior anti-PD1 only as adjuvant therapy*</td>
<td>4 (25.0%)</td>
<td>26 (34.7%)</td>
<td>30 (33.0%)</td>
</tr>
<tr>
<td><strong>Disease stage, n (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IIIb</td>
<td>0 (0.0%)</td>
<td>3 (4.0%)</td>
<td>3 (3.3%)</td>
</tr>
<tr>
<td>IIIc</td>
<td>0 (0.0%)</td>
<td>26 (34.7%)</td>
<td>26 (28.6%)</td>
</tr>
<tr>
<td>IVM1a</td>
<td>3 (18.8%)</td>
<td>12 (16.0%)</td>
<td>15 (16.5%)</td>
</tr>
<tr>
<td>IVM1b</td>
<td>6 (37.5%)</td>
<td>14 (18.7%)</td>
<td>20 (22.0%)</td>
</tr>
<tr>
<td>IVM1c</td>
<td>7 (43.8%)</td>
<td>20 (26.7%)</td>
<td>27 (29.7%)</td>
</tr>
<tr>
<td><strong>LDH, n(%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDH&lt;=ULN</td>
<td>13 (81.3%)</td>
<td>49 (65.3%)</td>
<td>62 (68.1%)</td>
</tr>
<tr>
<td>LDH&gt;ULN</td>
<td>3 (18.8%)</td>
<td>21 (28.0%)</td>
<td>24 (26.4%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>0 (0.0%)</td>
<td>5 (6.7%)</td>
<td>5 (5.5%)</td>
</tr>
<tr>
<td><strong>Baseline ECOG status, n(%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>13 (81.3%)</td>
<td>48 (64.0%)</td>
<td>61 (67.0%)</td>
</tr>
<tr>
<td>1</td>
<td>3 (18.8%)</td>
<td>27 (36.0%)</td>
<td>30 (33.0%)</td>
</tr>
</tbody>
</table>

**Notes:**

- Baseline PD-L1 status is currently being generated
- Data from the prior 16 patients showed response to be independent of baseline PD-L1 status
# Treatment related AEs – all IGNYTE skin cancer patients treated with RP1 combined with Opdivo (N=187)

<table>
<thead>
<tr>
<th>Preferred Term</th>
<th>Grade 1-2 (&gt;10%) (%)</th>
<th>Grade 3 (all) (%)</th>
<th>Grade 4 (all) (%)</th>
<th>Grade 5 (all) (%)</th>
<th>Total (N=187) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatigue</td>
<td>60 (32.1%)</td>
<td>6 (3.2%)</td>
<td>0</td>
<td>0</td>
<td>64 (34.2%)</td>
</tr>
<tr>
<td>Chills</td>
<td>54 (28.9%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>54 (28.9%)</td>
</tr>
<tr>
<td>Pyrexia</td>
<td>47 (25.1%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>48 (25.1%)</td>
</tr>
<tr>
<td>Nausea</td>
<td>39 (20.9%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>39 (20.9%)</td>
</tr>
<tr>
<td>Influenza like illness</td>
<td>26 (13.9%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>26 (13.9%)</td>
</tr>
<tr>
<td>Pruritus</td>
<td>25 (13.4%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>25 (13.4%)</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>18 (9.6%)</td>
<td>3 (1.6%)</td>
<td>0</td>
<td>0</td>
<td>21 (11.2%)</td>
</tr>
<tr>
<td>Rash</td>
<td>15 (8.0%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>16 (8.6%)</td>
</tr>
<tr>
<td>Decreased appetite</td>
<td>11 (5.9%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>12 (6.4%)</td>
</tr>
<tr>
<td>Rash maculo-papular</td>
<td>9 (4.8%)</td>
<td>4 (2.1%)</td>
<td>0</td>
<td>0</td>
<td>13 (7.0%)</td>
</tr>
<tr>
<td>Arthralgia</td>
<td>9 (4.8%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>10 (5.3%)</td>
</tr>
<tr>
<td>Injection site reaction</td>
<td>7 (3.7%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>8 (4.3%)</td>
</tr>
<tr>
<td>Dyspnoea</td>
<td>4 (2.1%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>5 (2.6%)</td>
</tr>
<tr>
<td>Lipase increased</td>
<td>4 (2.1%)</td>
<td>2 (1.1%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>7 (3.7%)</td>
</tr>
<tr>
<td>Amylase increased</td>
<td>3 (1.6%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>3 (1.6%)</td>
</tr>
<tr>
<td>Colitis</td>
<td>2 (1.1%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>3 (1.6%)</td>
</tr>
<tr>
<td>Eczema</td>
<td>3 (1.6%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>3 (1.6%)</td>
</tr>
<tr>
<td>Hypophysis</td>
<td>2 (1.1%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>3 (1.6%)</td>
</tr>
<tr>
<td>Abdominal pain</td>
<td>1 (0.5%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>2 (1.1%)</td>
</tr>
<tr>
<td>Arthritis</td>
<td>1 (0.5%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>2 (1.1%)</td>
</tr>
<tr>
<td>Hypertension</td>
<td>1 (0.5%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>2 (1.1%)</td>
</tr>
<tr>
<td>Hyponatraemia</td>
<td>2 (1.1%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>2 (1.1%)</td>
</tr>
<tr>
<td>Hypotension</td>
<td>1 (0.5%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>2 (1.1%)</td>
</tr>
<tr>
<td>Immune-mediated hepatitis</td>
<td>0</td>
<td>2 (1.1%)</td>
<td>0</td>
<td>0</td>
<td>2 (1.1%)</td>
</tr>
<tr>
<td>Muscular weakness</td>
<td>1 (0.5%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>2 (1.1%)</td>
</tr>
<tr>
<td>Myocarditis</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>2 (1.1%)</td>
</tr>
<tr>
<td>Paresthesia</td>
<td>1 (0.5%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>2 (1.1%)</td>
</tr>
<tr>
<td>Acute left ventricular failure</td>
<td>0</td>
<td>0</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Cytokine release syndrome</td>
<td>0</td>
<td>0</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Ejection fraction decreased</td>
<td>0</td>
<td>0</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Hepatic cytolysis</td>
<td>0</td>
<td>0</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Localised oedema</td>
<td>1 (0.5%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Lymph node pain</td>
<td>1 (0.5%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Palmar-planlar erythrodysaesthesia syndrome</td>
<td>1 (0.5%)</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Supraventricular tachycardia</td>
<td>0</td>
<td>0</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Confusional state, Enterocolitis, Marginal zone B-cell lymphoma, Hypovolaemic shock, Left ventricular dysfunction, Liver function test increased, Memory impairment, Meningitis aseptic, Mental status changes, Oedema, Oral candidiasis</td>
<td>0</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>0</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Immune-mediated myocarditis</td>
<td>0</td>
<td>1 (0.5%)</td>
<td>0</td>
<td>1 (0.5%)</td>
<td>1 (0.5%)</td>
</tr>
</tbody>
</table>

**Key Takeaway**

Generally grade 1/2 "on target" side effects (i.e. indicative of systemic immune activation; highlighted), combined with the underlying safety profile of Opdivo.
IGNYTE data: ORR

<table>
<thead>
<tr>
<th>N=16</th>
<th>N=75</th>
<th>N=91</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior patients</td>
<td>Data snapshot patients</td>
<td>All patients</td>
</tr>
<tr>
<td>N=16</td>
<td>N=75</td>
<td>N=91</td>
</tr>
<tr>
<td>n(%)</td>
<td>n(%)</td>
<td>n(%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prior adjuvant anti-PD1 only</th>
<th>Prior anti-PD1 other than adjuvant</th>
<th>Prior anti-PD1 &amp; anti-CTLA4</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=30</td>
<td>N=61</td>
<td>N=31</td>
</tr>
<tr>
<td>n(%)</td>
<td>n(%)</td>
<td>n(%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage IIIb/IIlc/IVa</th>
<th>Stage IVb/IVc</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=44</td>
<td>N=47</td>
</tr>
<tr>
<td>n(%)</td>
<td>n(%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Best Overall Response</th>
<th>CR</th>
<th>PR</th>
<th>SD</th>
<th>PD</th>
<th>ORR</th>
<th>DCR (CR+PR+SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n(%)</td>
<td>n(%)</td>
<td>n(%)</td>
<td>n(%)</td>
<td>n(%)</td>
<td>n(%)</td>
<td>n(%)</td>
</tr>
</tbody>
</table>

| CR | 2 (12.5%) | 15 (20.0%) | 17 (18.7%) | 9 (30.0%) | 8 (13.1%) | 2 (6.3%) | 13 (29.5%) | 4 (8.5%) |
| PR | 4 (25.0%) | 12 (16.0%) | 16 (17.5%) | 6 (20.0%) | 10 (16.4%) | 7 (21.9%) | 7 (15.9%) | 9 (19.1%) |
| SD | 1 (6.3%) | 13 (17.3%) | 14 (15.4%) | 7 (23.3%) | 7 (11.5%) | 5 (15.6%) | 6 (13.6%) | 8 (17.0%) |
| PD | 8 (50.0%) | 32 (42.7%) | 40 (44.0%) | 8 (26.7%) | 32 (52.5%) | 14 (43.8%) | 18 (40.9%) | 22 (46.8%) |
| ORR | 6 (37.5%) | 27 (36.0%) | 33 (36.3%) | 15 (50.0%) | 18 (29.5%) | 9 (29.0%) | 20 (45.4%) | 13 (27.7%) |
| DCR (CR+PR+SD) | 7 (43.8%) | 40 (53.3%) | 47 (51.6%) | 22 (73.3%) | 25 (41.0%) | 14 (45.2%) | 26 (59.1%) | 21 (44.7%) |

Key Snapshot Takeaways

- 36% ORR overall
- At least 27.7% ORR in all sub-groups analyzed
- Particularly high ORR (50%) and CR rate (30%) in patients who progressed while on prior adjuvant anti-PD1 therapy
- Data from the 75 patient snapshot are consistent with the 16 patients enrolled into the prior melanoma cohort

Investigator assessed responses: The primary analysis for the 15 patient cohort will be by central review.
Waterfall plots: All patients
Maximum change in target lesions; patients with at least one follow up assessment

Key Takeaways
- >50% of patients have target (RECIST) tumor reduction
- Deep responses observed
- Includes CRs in patients with Stage IV M1b/c disease
Spider plots: All patients
Patients with at least one follow up assessment

Key Takeaway
Responses tend to deepen over time
Swimmer’s plots: All patients
Patients with at least one follow up assessment

Key Takeaway
Responses are durable, indicating systemic overall benefit
Timing and duration of prior anti-PD1 therapy for new responding patients

Key Takeaways

• Most responding patients progressed rapidly through prior anti-PD1 therapy
• 85% of responses are ongoing
• 59% of responders are already out over one year despite immature data
Response of injected & not injected lesions for responding patients

Key Takeaway

- 70.4% of responding patients have lesions which were not injected

See patient images, including in the Appendix, showing individual patient injected and un-injected responses
Preliminary PFS and OS : All (N=91)

Key Takeaways
- While PFS relatively immature, a plateau appears to be developing
- OS data is immature but also appears promising

*The protocol requires PD to be confirmed, to allow for pseudo-progression. The definition of a PFS event is therefore PD where PD was subsequently confirmed (date of event = date of initial PD), any event of PD where treatment was then discontinued, or death from any cause.
Patient 1121-2011:
Prior Opdivo and Keytruda, Stage IVM1c

29 JUL 2021 / Screening

20 APRIL 2022
Patient 1121-2011 Cont’d:
Prior Opdivo, Keytruda: Stage IVM1c

22 Jul 2021/ Baseline

22 Sep 2021/ Day 57

29 Dec 2021/ Day 155
Patient 1121–2011 Cont’d:
Prior Opdivo, Keytruda; Stage IVM1c

22 Jul 2021/
Baseline

22 Sep 2021/
Day 57

29 Dec 2021/
Day 155
Patient 4405–2007:
Prior Keytruda, Yervoy/Opdivo: Stage IV M1b

6 Aug 2021/Baseline  
24 Jan 2022  
31 Aug 2022

Injected  Un-injected

© 2022 Replimune Group Inc.
Patient 4405–2007 Cont’d:
Prior Keytruda, Yervoy/Opdivo: Stage IVM1b

6 Aug 2021/Baseline

24 Jan 2022

31 Aug 2022
Patient 3410-2001:
Prior adjuvant Keytruda: Stage IVM1a

23SEP2021/Screen
25JAN2022/Day 113
17MAY2022/Day 211
6SEP2022/Day 323

© 2022 Replimune Group Inc.
Patient 3410–2001 Cont’d:
Prior adjuvant Keytruda: Stage IVM1a

23SEP2021/Screen
25JAN2022/Day 113
17MAY2022/Day 211
6SEP2022/Day 323

Injected
Un-injected

NOT IMAGED
NOT IMAGED
Patient 4401–2021: Prior Tafinlar/Mekinist, Keytruda
Disease presentation type: Prior BRAF/MEK as well as progressed on anti-PD1 Stage IVM1c

- 12JAN2021/Baseline
- 15FEB2022/Day 368

Data snapshot date: 3 Nov 2022
Summary & Conclusions

- RP1 combined with Opdivo continues to have an attractive safety profile, with generally ‘on target’ and transient Grade 1-2 side effects, i.e. indicative of systemic immune activation

- 36% ORR and 20% CRR was seen

- 85% of responses are durable to date

- Most responses are in patients who did not respond to prior anti-PD1 therapy

- RP1 combined with Opdivo has shown clinically meaningful activity across the range of anti-PD1 failed cutaneous melanoma presentations:
  - Failed adjuvant anti-PD1 therapy
  - Failed one or more lines of anti-PD1 therapy for recurrent or metastatic disease
  - Failed anti-PD1 combined with anti-CTLA-4 therapy
  - This includes in patients with moderate to high tumor burden of each type

- Responses seen in both injected and in un-injected lesions
  - 70% of responding patients have both injected & un-injected lesions
  - Impressive abscopal responses, including in visceral disease

- Preliminary PFS/OS data are promising
Translating the commercial opportunity in anti-PD1 failed melanoma

• The IGNYTE data supports a potential sizeable commercial opportunity to address the complete range of anti-PD1 failed melanoma patients regardless of tumor burden, setting, stage, line of treatment, resistance profile, or prior treatment(s)

• Increasing anti-PD1 treatment of early disease following neoadjuvant and/or adjuvant data for stage III-IV patients represents an attractive opportunity as.....
  
  • Approx. a third of patients will relapse on anti-PD1 treatment within a year¹, and are expected to make up a significant and growing population in the future
  
  • Given the strong data in prior adjuvant failed anti-PD1 patients including a high rate of complete response, RP1+Opdivo provides a compelling potential option for these patients

• RP1+Opdivo is very well tolerated especially relative to other options including Yervoy, Yervoy+Opdivo, Lenvima (lenvatinib)+Keytruda and TIL therapy all of which have high rates of grade 3-4 toxicity
  
  • This provides an opportunity to increase the treated market as many patients currently forego treatment due to toxicity concerns

¹Owen CN. Ann Oncol. 2020 August ; 31(8): 1075-1082
RP1: A significant skin franchise opportunity

Aiming to transform skin cancer care with RP1

- RP1 + anti-PD1 intended to improve on SOC
- Address high unmet need anti-PD-1 failed settings
- Provides opportunity for cure in early-stage patients

Potential for approx. 10K additional advanced CSCC patients with transformational results (e.g., higher CR rates are seen)

Advanced CSCC*
11K patients

- 1L CSCC – includes solid organ transplant, and immunodeficient
- 2L+ BRAF MT
- 2L+ BRAF WT
- 1L prior adj anti-PD-1 failed

Anti-PD1-failed melanoma**
13K patients

1L prior adj anti-PD-1 failed

Neo-adjuvant skin cancers***
~45K patients

~80K US patient opportunity

RP1: Initial launch in skin cancers maximizes the chance of commercial success due to high unmet need & tumor directed administration feasibility.

1. **Superficial lesions**
   - Where delivery can be easy and routine and doesn't need imaging guidance:
     - Superficial/palpable lesions

2. **Deeper nodes/liver lesions**
   - Where delivery is part of routine medical practice or can be easily adopted via ultrasound:
     - e.g., deeper nodes-visceral organs for skin cancers and primary liver cancer or liver metastases
   - "Ultrasound increases eligible pool to 60-70% of all melanoma pts"

3. **Visceral lesions (other organs beyond liver)**
   - Where routine adoption poses a higher barrier: Tumors where strong data is required to justify injections e.g., lung neoadjuvant settings

Increasing Administration Intricacy
Superficial skin lesion injections are feasible and can routinely be incorporated across the majority of practice settings

<table>
<thead>
<tr>
<th>SIMPLER</th>
<th>COMPLEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orals</td>
<td>Cell Therapies</td>
</tr>
<tr>
<td>IVs</td>
<td>Tumor Directed Oncolytic Immunotherapy (TDOI)</td>
</tr>
</tbody>
</table>

**Superficial injection**
- (skin lesions)

**Scheduling & Logistics**
- Ability to store RP1 at refrigeration (2-8°C) for an extended period planned for launch and seen as key benefit for community practices
- Dosage / admin differs from other therapies but can be incorporated into existing workflows

**Injection**
- Majority of CSCC and many melanoma lesions won’t require image guidance
- Identifying and training injectors will be key e.g., APPs (NP/PA’s) and eventually nurses - > experienced users can inject in 10-15 mins

**Biosafety**
- HCP training/education will increase confidence and help address misperceptions
- Extensive RP1 safety data (>350 pts treated); biosafety data generation and publication in progress

*Buying process market research
**Intended RP1 launches in skin cancer: Critical success factors for the RP1 go to market model**

<table>
<thead>
<tr>
<th>Critical Success Factors</th>
<th>Confidence &amp; Positive Experience</th>
<th>Community Launch</th>
</tr>
</thead>
<tbody>
<tr>
<td>High PRs and CRs with long duration are meaningful clinical endpoints in both skin indications</td>
<td>☑️</td>
<td>☑️</td>
</tr>
<tr>
<td>Strong US patient enrollment/site involvement in REPL skin studies</td>
<td>☑️</td>
<td>☑️</td>
</tr>
<tr>
<td>Skin cancers treated by the same physicians (and also significant KOL overlap in CSCC and melanoma)</td>
<td>☑️</td>
<td>☑️</td>
</tr>
<tr>
<td>Transformative data including in high unmet need anti-PD1-failed pts drive customer excitement to adopt a new modality</td>
<td>☑️</td>
<td>☑️</td>
</tr>
<tr>
<td>High % of easily injectable lesions in skin tumor types (no need for image guidance for most patients)</td>
<td>☑️</td>
<td>☑️</td>
</tr>
<tr>
<td>Two indications within a short period increases customer experience/confidence due to higher patient volume</td>
<td>☑️</td>
<td>☑️</td>
</tr>
<tr>
<td>Adding RP1 onto vs. replacing anti-PD1 aligns with practice “buy and bill” economics to use the combination</td>
<td>☑️</td>
<td>☑️</td>
</tr>
</tbody>
</table>
Investment in manufacturing to support full commercialization

- 63,000 square foot state-of-the-art facility for GMP manufacturing
  - RP1-3 technology transfer from CMO successfully completed
  - RP1 released to clinic post comparability analysis
  - RP1 BLA consistency lot runs underway
- Scale expected to be sufficient to cover global commercialization of all Replimune’s product candidates at full capacity
- Commercially attractive cost of goods & ‘off the shelf’ product practicality
SECTION I
Overview

SECTION II
RP1: IGNYTE Melanoma Data Snapshot

SECTION III
RP1 Commercial Opportunity

SECTION IV
RP2/3 Update
Ocular or “uveal” melanoma is a rare cancer with approx. 1,000 cases in the US per year\(^1\)
- Originates from melanocytes and can occur in several eye locations
- The historic median OS is approx. 12 months\(^1\)

Uveal melanoma behaves quite differently from skin melanoma
- Mostly metastasizes to the liver (approx. 70-90% of cases) and once this occurs only about 10% of these patients survive beyond a year
- A difficult to treat tumor where CPIs have previously demonstrated limited activity\(^2,3,4\)
- Kimmtrak (tebentafusp) is the 1st approved agent in uveal melanoma in HLA-A-02:01-positive adult patients (approx. 50% of the total population)*

Unmet need for uveal melanoma patients remains high, including improved efficacy/tolerability, effective options for HLA negative patients, and options for Kimmtrak and anti-PD1 failed patients
Uveal melanoma patients treated with RP2
4 out of 14 patients for whom the outcome is known responded (28.6%) – all anti-PD1 failed

<table>
<thead>
<tr>
<th>Patient #</th>
<th>RP2 monotherapy or combination w/ nivolumab</th>
<th>Prior therapies</th>
<th>Sites of disease</th>
<th>Best response</th>
<th>Current status</th>
</tr>
</thead>
<tbody>
<tr>
<td>4401-0002</td>
<td>Monotherapy</td>
<td>Ipilimumab+ nivolumab, temozolomide , selumetinib+ vistusertib , carboplatin</td>
<td>Lung, liver, abdomen, chest, lymph nodes, subcutaneous, bone</td>
<td>PD</td>
<td>Died</td>
</tr>
<tr>
<td>4401-0003</td>
<td>Monotherapy</td>
<td>Ipilimumab+ nivolumab</td>
<td>Liver</td>
<td>PR to 15 months</td>
<td>Died post PD</td>
</tr>
<tr>
<td>4401-0007</td>
<td>Monotherapy</td>
<td>Ipilimumab+ nivolumab, intratumoral AGI-134</td>
<td>Liver, kidney, head and neck, peritoneal, intramuscular, subcutaneous, bone</td>
<td>Not done (non-evaluable)</td>
<td>Died</td>
</tr>
<tr>
<td>4401-0014</td>
<td>Combination</td>
<td>None</td>
<td>Liver</td>
<td>SD</td>
<td>Died</td>
</tr>
<tr>
<td>4402-0007</td>
<td>Combination</td>
<td>Nivolumab</td>
<td>Orbital mass, bone (pelvis, vertebral), cheek</td>
<td>PR</td>
<td>Ongoing PR (CR by PET scan reported by investigator) at 21 months from first dose</td>
</tr>
<tr>
<td>4401-0021</td>
<td>Combination</td>
<td>Selumitinib+paclitaxel, pembrolizumab, ipilimumab, melphalan intrahepatic chemoperfusion</td>
<td>Liver, GI lymph nodes, abdominal wall, leg,</td>
<td>SD</td>
<td>Died</td>
</tr>
<tr>
<td>4401-0022</td>
<td>Combination</td>
<td>Ipilimumab, dacarbazine</td>
<td>Liver</td>
<td>Not captured</td>
<td>Died</td>
</tr>
<tr>
<td>4402-0014</td>
<td>Combination</td>
<td>Ipilimumab , pembrolizumab</td>
<td>Retroperitoneal, SCF</td>
<td>PR</td>
<td>Ongoing PR at 12 months from first dose</td>
</tr>
<tr>
<td>4403-0014</td>
<td>Combination</td>
<td>IMCGP100</td>
<td>Liver</td>
<td>PD</td>
<td>Died</td>
</tr>
<tr>
<td>4403-0015</td>
<td>Combination</td>
<td>IMCGP100 , nivolumab+ ipilimumab</td>
<td>Lung, liver, vertebra</td>
<td>SD</td>
<td>Patient withdrew consent</td>
</tr>
<tr>
<td>4401-0026</td>
<td>Combination</td>
<td>Ipilimumab+ nivolumab , chemosaturation</td>
<td>Liver</td>
<td>PD</td>
<td>Lost to follow-up</td>
</tr>
<tr>
<td>4403-0017</td>
<td>Combination</td>
<td>Ipilimumab +nivolumab</td>
<td>Liver</td>
<td>PR</td>
<td>Ongoing PR at 9 months from first dose</td>
</tr>
<tr>
<td>4402-0018</td>
<td>Combination</td>
<td>None</td>
<td>Liver</td>
<td>SD</td>
<td>In follow up</td>
</tr>
<tr>
<td>4402-0019</td>
<td>Combination</td>
<td>Ipilimumab , pembrolizumab</td>
<td>Liver, perirenal</td>
<td>PD</td>
<td>In Follow-up</td>
</tr>
<tr>
<td>4403-0018</td>
<td>Combination</td>
<td>Nivolumab+ ipilimumab</td>
<td>Liver</td>
<td>SD</td>
<td>On treatment</td>
</tr>
<tr>
<td>4403-0019</td>
<td>Combination</td>
<td>Ipilimumab+ nivolumab</td>
<td>Liver</td>
<td>Not done yet</td>
<td>On treatment</td>
</tr>
<tr>
<td>3412-0001</td>
<td>Combination</td>
<td>Ipilimumab+nivolumab, IL-2, carboplatin, paclitaxel</td>
<td>Liver, lung</td>
<td>Not done yet</td>
<td>On treatment</td>
</tr>
</tbody>
</table>

Legend: **Green** - responding patients  **Yellow** - patients ongoing on treatment for whom the outcome isn't yet known
Patient 201-4401-0003: Uveal melanoma
Prior Yervoy/Opdivo – PR (RP2 monotherapy)

Screening

3 months (SD)

6 months (PR)

9 months (PR)

Pt 4401-0003 - PR

• Extensive liver metastases (others not shown)

• Prior therapies: Ipilimumab/nivolumab

• Patient progressed at 15 months
Patient 201-4402-0007: Uveal melanoma
Prior Opdivo – PR (RP2+Opdivo)

Notes:
- Ongoing metabolic CR at 21 months
Patient 201-4403-0017: Uveal melanoma
Prior Yervoy/Opdivo – PR (RP2+Opdivo)

24th Dec 2021
(Screening)

5th Sept 2022

Injected
Un-injected
### RP3: Sarcoma disease context & unmet need

- Considerable unmet need: 13,190 new cases in the US in 2022\(^1\)
- SOC is generally radiation followed by chemotherapy; anti-PD1 may be used in responsive sub-types
- FDA approvals include trabectedin (Yondelis) for unresectable/metastatic leiomyosarcoma and liposarcoma after anthracycline
  - PFS 4.2 vs 1.5 months
  - ORR 7% vs 6%

### Tumor type where single arm data based on unmet need, strong ORR, and durability of response may be suitable for approval – example where opportunistic data-driven development of RP3 might be considered

- Across most subtypes, ORR's of ~25% (often lower) are considered promising, especially 2L and later
- Several subtypes/settings with no FDA approval agents (NCCN listings for various agents)
- Many sub-types resistant to anti-PD1 therapy
- Combination with anti-PD1 remains unapproved for any sarcoma type
- Considerable unmet need in STS remains, including new therapies for patients having failed SOC

\(^1\)US new cases diagnosed, approx. 5,000 deaths (American Cancer Society 2022)
RP3 in sarcoma

- So far 5 patients have been treated with RP3 combined with nivolumab
  - Epithelioid sarcoma
  - Leiomyosacoma
  - Myxofibrosarcoma
  - Osteosarcoma
  - Chondrosarcoma

- All have failed standard of care (chemotherapy and other therapies)

- So far the first three patients have follow up and all are responding to therapy
Patient 301-4402-0003: Epithelioid sarcoma

March 2022 (baseline)

Pleural effusion required drainage Q2W at baseline – not needed since

August 2022

PET scan in Aug showed no SUV in lungs/pleura, with residual small areas of uptake in the chest wall – too small to inject

Notes:

- In 80 patients with rare sarcomas (inc ES), 15% achieved a PR, none CR, with single agent pembrolizumab (ESMO 2020 abstract 1619O)
Patient 301-4402-0005: Leiomyosarcoma

10th June 2022

23rd June 2022

17th Aug 2022

11th Oct 2022
Patient 301-402-0006: Myxofibrosarcoma

22\textsuperscript{nd} May 2022 (Screening)

23\textsuperscript{rd} Aug 2022
## RP2 vs. RP3 positioning and ph2 development plan

**Liver/liver mets enriched development post Roche collaboration**

<table>
<thead>
<tr>
<th>Liver/liver mets</th>
<th>Development Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1L SCCHN</strong></td>
<td></td>
</tr>
<tr>
<td>RP3+chemo+Opdivo</td>
<td>1L CPS &lt;20 SCCHN Ph2, ~30 pts</td>
</tr>
<tr>
<td></td>
<td>Expand single arm or RCT for approval (N=TBD)**</td>
</tr>
<tr>
<td></td>
<td>Open label safety, response &amp; PFS data</td>
</tr>
<tr>
<td></td>
<td>Potentially registrational dataset</td>
</tr>
<tr>
<td>LA/1L SCCHN</td>
<td>LA SCCHN 100 pts randomized</td>
</tr>
<tr>
<td></td>
<td>Expand to registrational n</td>
</tr>
<tr>
<td></td>
<td>Randomized safety response &amp; RFS data</td>
</tr>
<tr>
<td><strong>1L/2L HCC</strong></td>
<td></td>
</tr>
<tr>
<td>RP3+atezo/bev</td>
<td>1L HCC Ph2, ~30 pts</td>
</tr>
<tr>
<td></td>
<td>Expand single arm or RCT for approval (N=TBD)**</td>
</tr>
<tr>
<td></td>
<td>Open label safety, response &amp; PFS data</td>
</tr>
<tr>
<td></td>
<td>Potentially registrational dataset</td>
</tr>
<tr>
<td><strong>RP3+chemo+Opdivo</strong></td>
<td>2L HCC Ph2, ~30 pts</td>
</tr>
<tr>
<td><strong>3L CRC</strong></td>
<td></td>
</tr>
<tr>
<td>RP2+atezo/bev &amp; RP3+atezo/bev</td>
<td>3L CRC Ph2, ~30 pts each</td>
</tr>
<tr>
<td></td>
<td>Expand single arm or RCT for approval (N=TBD)**</td>
</tr>
<tr>
<td></td>
<td>Open label safety, response &amp; PFS data</td>
</tr>
<tr>
<td></td>
<td>Potentially registrational dataset</td>
</tr>
</tbody>
</table>

**Potential fast to market opportunities**

**Pending FDA agreement**

*Note: Replimune has clinical trial collaboration & supply agreements with BMS & Roche for the supply of Opdivo and atezo/bev in its clinical trial programs with RP2/3*
A high unmet need in liver cancer/liver metastases remains

Unmet need

- The liver is a common site of metastasis across tumor types
- Patients with liver metastases have a poor prognosis
- IO has a particularly poor outcome in pts with liver metastases
- Liver metastases are often the primary driver of mortality

Scientific rationale

- Liver metastases are associated with the antigen-specific elimination of T cells from the circulation by macrophages
  - Leads to systemic loss of T cells and diminished immunotherapy efficacy

“OI” rationale/feasibility

- RPx MOA - powerful direct tumor killing & systemic immune activation
  - Relief of organ (liver) symptoms & systemic disease control
- Liver/liver metastases are routinely injected by ultrasound, and radiologists already play a key role in patient management

Agenus: 2L+ MSS CRC – Botensilimab (CTLA4)+PD-1
EMSO 2022

24% ORR in overall population (N=41)
0% ORR in pts with liver mets (n=17)
RP1/2 can be administered safely and repeatably in the liver

### Conclusions

- **RP1/2 ± Opdivo demonstrated good tolerability in patients with liver metastases**

- No difference in the adverse event profile according to administration route was seen, although the incidence of pyrexia, nausea, chills, and fatigue was increase with RP1 injection into liver mets vs. when liver mets were not injected.

- Patients with various tumor types have responded following injection into liver mets, includes patients with melanoma, uveal melanoma, esophageal cancer & MSI-H CRC
## Data snapshot summary in anti-PD1 failed melanoma

### RESPONSE RATE

<table>
<thead>
<tr>
<th>ORR</th>
<th>CRR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>36%</strong></td>
<td><strong>20%</strong></td>
</tr>
</tbody>
</table>

*across the trial population*

- Consistent with prior phase I data in 16 anti-PD1 failed melanoma patients
- Includes patients with moderate to high tumor burden and visceral disease
- Most responses are in patients with primary resistant disease
- ORR of at least 27.7% across all sub-groups analyzed*

### DURABILITY

- **85%**
- of responses ongoing, with 59% of responders out over one year

### SAFETY

- Well-tolerated
- mainly Grade 1-2 “on target” and transient side effects observed

### SYSTEMIC ACTIVITY

**Abscopal activity**

- many un-injected tumor responses seen including visceral disease

### SURVIVAL (PFS/OS)

- **Plateaus developing**

---

Replimune believes that RPI combined with Opdivo has the potential to become the preferred treatment option for a wide range of patients with anti-PD1 failed melanoma presentations.

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* Analyzed for all patients (n=91)
Overall summary

Major skin cancer franchise planned with RP1
- Strong data to date in multiple skin cancers in both the PD1 naïve and failed setting
  - Anti-PD1 failed data presented today potentially transformative in anti-PD1 failed melanoma
  - CERPASS registrational data in CSCC expected 1H 2023
- Scale manufacturing in place
  - Sufficient to serve worldwide market at attractive COGS
- Commercial planning ramping up for intended US launch*

RP2/3 mid-stage pipeline
- Focused on easily injected tumor types with high commercial value, such as SCCHN, HCC, & CRC
- Fast routes to randomized controlled trials or expansion of single arm trials for approval

Strong cash position to execute on our vision
- Cash and Investments as of September 30, 2022 $372M
- Cash Runway into 2025
- Availability of $200M non-dilutive debt facility

* Subject to submission & approval of a BLA
MISSION
To enable tumor directed oncolytic immunotherapy (TDOI) to become a cornerstone in the treatment of cancer

VISION
To deliver transformational results for patients across cancers using tumor directed oncolytic immunotherapy to induce a powerful and durable systemic anti-tumor immune response resulting in quality survival and a chance for a cure

THANK YOU
APPENDIX

Responding patient images from the 75 patient snapshot in anti-PD1 failed melanoma
Patient 4405-2007: Prior Keytruda, Yervoy/Opdivo
Disease presentation type: Progressed on combined anti-CTLA-4/anti-PD1 Stage IVM1b

6 Aug 2021/Baseline

24 Jan 2022

31 Aug 2022

Data snapshot date: 3 Nov 2022
Patient 4405–2007 contd.

6 Aug 2021/Baseline

24 Jan 2022

31 Aug 2022

Data snapshot date: 3 Nov 2022
Patient 1122-2031: Prior Yervoy/Opdivo

Disease presentation type: Progressed on combined anti-CTLA-4/anti-PD1 Stage IVM1c

Data snapshot date: 3 Nov 2022; Further follow up scans not yet uploaded

9JUN2021
Screening

12AUG2021
Day 57

Injected  Un-injected
Patient 1121-2011: Prior Opdivo, Keytruda

Disease presentation type: Progressed on anti-PD1 Stage IVM1c

29JUL2021/Screening

20APRIL2022

Data snapshot date: 3 Nov 2022
Patient 1121–2013: Prior Keytruda

Disease presentation type: Progressed on anti-PD1 Stage IVM1c

11NOV2021/Screening

17MAR2022/Day 113

17JUN2022/Day 211
Patient 4401–2021: Prior Tafinlar/Mekinist, Keytruda
Disease presentation type: Prior BRAF/MEK as well as progressed on anti-PD1 Stage IVM1c

12JAN2021/Baseline  
15FEB2022/Day 368

12JAN2021/Baseline  
15FEB2022/Day 368

Data snapshot date: 3 Nov 2022
Patient 1156-2001: Prior Keytruda
Disease presentation type: Progressed on anti-PD1 stage IVM1c (near PR; on treatment)

18 Jun 2021/Baseline

11 Feb 2022/Day 211

19 Aug 2022/Day 379

Also bone

Data snapshot date: 3 Nov 2022

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Patient 4403–2012: Prior Yervoy/Opdivo
Disease presentation type: Progressed on prior anti-PD1/anti-CTLA4 Stage IV M1b

28 Oct 2021 /Baseline
7 Jan 2022 /Day 57
2 Mar 2022/ Day 113
12 May 2022/ Day 155
22 Jun 2022/ Day 211

Data snapshot date: 3 Nov 2022; Note: The second row lesion may be benign
Patient 4401–2013: Prior Yervoy, Opdivo

Disease presentation type: Progressed on anti-CTLA-4 as well as anti-PD1 Stage IVM1b

- 10MAR2020
- 14MAY2020
- 23DEC2020

Data snapshot date: 3 Nov 2022; Note: Also a number of small pelvic nodes, not shown
Patient 3314–2002: Prior Opdivo, Keytruda/MK13085 (anti-CTLA-4)/ MK7684 (anti-TIGIT) Disease presentation type: Progressed on multiple immunotherapies Stage IVM1b

Data snapshot date: 3 Nov 2022

© 2022 Replimune Group Inc.
Patient 1122–2032: Prior Opdivo
Disease presentation type: Progressed on anti–PD1 Stage IVM1b

Data snapshot date: 3 Nov 2022
Patient 1120–2001: Prior Keytruda, Opdivo/bempeg/NKTR 262, Yervoy/Opdivo

Disease presentation type: Progressed on multiple immunotherapies Stage IVM1a (near PR; on treatment)

Data snapshot date: 3 Nov 2022
Patient 4403–2013: Prior Keytruda
Disease presentation type: Progressed on anti-PD1 Stage IVM1a

NOTE:
Day 57 top 2 rows
different slices through
abdomen due to
different breath hold

Data snapshot date: 3 Nov 2022
Patient 4403–2013 contd.

Data snapshot date: 3 Nov 2022

20JAN2022/Screening

31MAR2022/Day 57

24MAY2022/Day 113

Injected

Un-injected

© 2022 Replimune Group Inc.
THIS SCAN DID NOT EXTEND DISTALLY TO THE KNEES
NUMEROUS OTHER LESIONS NOT SHOWN

Data snapshot date: 3 Nov 2022
Patient 1126–2001: Prior Opdivo

Disease presentation type: Progressed on prior anti-PD1 Stage IIIb

Data snapshot date: 3 Nov 2022
Patient 3410-2001: Prior Keytruda
Disease presentation type: Progressed on adjuvant anti-PD1 Stage IVM1a

Data snapshot date: 3 Nov 2022
Patient 3410–2001 contd.

23SEP2021/Screen

25JAN2022/Day 113

17MAY2022/Day 211

6SEP2022/Day 323

Data snapshot date: 3 Nov 2022
Patient 1122–2012: Prior Opdivo
Disease presentation type: Progressed on anti-PD1 Stage IIIc

11MAR2020/Baseline  19MAY2020  6APR2021/Day 391

Data snapshot date: 3 Nov 2022
Patient 1122–2027: Prior Keytruda
Disease presentation type: Progressed on adjuvant anti–PD1 Stage IIIc

20APR2021/Screening
22JUN2021/Day 57
17AUG2021/Day 113
30SEP2021/Day 155
2AUG2022/Day 435

Data snapshot date: 3 Nov 2022
Patient 1122-2034: Prior Keytruda
Disease presentation type: Progressed on prior anti-PD1 Stage IIc

15 Jul 2021/Baseline
5 Oct 2021/Day 57
29 Nov 2021/Day 113
26 Jul 2022/Day 323

Data snapshot date: 3 Nov 2022
Patient 1122–2015: Prior Keytruda
Disease presentation type: Progressed on prior adjuvant anti–PD1 Stage IIIC

Data snapshot date: 3 Nov 2022
Patient 1122-2016: Prior OPdivo

Disease presentation type: Progressed on adjuvant anti-PD1 therapy Stage IIIc

Data snapshot date: 3 Nov 2022
Patient 1119-2008: Prior Keytruda
Disease presentation type: Progressed on adjuvant anti-PD1 Stage IIIc

16 Jul 2020 / Baseline

21 Sep 2020 / Day 57

22 Mar 2021 / Day 211

27 Sep 2022 / Day 793

Data snapshot date: 3 Nov 2022
Patient 1121–2008: Prior Keytruda
Disease presentation type: Progressed on adjuvant anti-PD1 Stage IIIc

20APR2021/Screening

16NOV2021
Patient 1121-2005: Prior Keytruda

Disease presentation type: Progressed on prior adjuvant anti-PD1 Stage IIIc

23JUNE2020/Screening

18AUG2020

1DEC2020
Patient 1103–2004: Prior Keytruda
Disease presentation type: Progressed on adjuvant anti-PD1 Stage IIIc

30 Nov 2020 / Baseline
1 Apr 2021 / Day 113
7 Apr 2022 / Day 547

Data snapshot date: 3 Nov 2022
Patient 4403–2007: Prior Keytruda
Disease presentation type: Progressed on anti–PD1 Stage IIIb

17 Mar 2021/Baseline
17 Nov 2021/Day 211
4 May 2022/Day 379

Injected
Un-injected

Data snapshot date: 3 Nov 2022
Patient 1117–2006: Prior Keytruda
Disease presentation type: Progressed on adjuvant anti-PD1 Stage IIIb

Data snapshot date: 3 Nov 2022

12 Feb 2021 / Baseline
19 Apr 2021 / Day 57
12 Aug 2021 / unscheduled
**Patient 1122-2030: Prior Keytruda**

Disease presentation type: Progressed on adjuvant anti-PD1 Stage IIIb

Data snapshot date: 3 Nov 2022

Also other nodes which remain stable-reduced