Legal Notices

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Any statements in this slide deck about future expectations, plans and prospects for MacroGenics (“Company”), including statements about the Company’s strategy, future operations, clinical development of the Company’s therapeutic candidates, including initiation and enrollment in clinical trials, expected timing of results from clinical trials, discussions with regulatory agencies, commercial prospects of or product revenues from MARGENZA and the Company’s product candidates, if approved, manufacturing services revenue, milestone or opt-in payments from the Company’s collaborators, the Company’s anticipated milestones and future expectations and plans and prospects for the Company, as well as future global net sales of TZIELD and the Company’s ability to achieve the milestone payments set forth under the terms of the agreement with DRI (or its successors or assigns with respect to such agreement), and other statements containing the words “subject to”, “believe”, “anticipate”, “plan”, “expect”, “intend”, “estimate”, “potential”, “project”, “may”, “will”, “should”, “would”, “can”, the negatives thereof, variations thereon and similar expressions, or by discussions of strategy constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: risks that TZIELD, vobramitamab duocarmazine, lorigerlimab, ZYNZY, MARGENZA or any other product candidate’s revenue, expenses and costs may not be as expected, risks relating to TZIELD, vobramitamab duocarmazine, lorigerlimab, ZYNZY, MARGENZA or any other product candidate’s market acceptance, competition, reimbursement and regulatory actions; our ability to provide manufacturing services to our customers; the uncertainties inherent in the initiation and enrollment of future clinical trials; the availability of financing to fund the internal development of our product candidates; expectations of expanding ongoing clinical trials; availability and timing of data from ongoing clinical trials; expectations for the timing and steps required in the regulatory review process; expectations for regulatory approvals; expectations of future milestone payments; the impact of competitive products; our ability to enter into agreements with strategic partners and other matters that could affect the availability or commercial potential of the Company’s product candidates; business, economic or political disruptions due to catastrophes or other events, including natural disasters, terrorist attacks, civil unrest and actual or threatened armed conflict, or public health crises such as the novel coronavirus (referred to as COVID-19 pandemic); and other risks described in the Company’s filings with the Securities and Exchange Commission. In addition, the forward-looking statements included in this slide deck represent the Company’s views only as of the date hereof. The Company anticipates that subsequent events and developments will cause the Company’s views to change. However, while the Company may elect to update these forward-looking statements at some point in the future, the Company specifically disclaims any obligation to do so, except as may be required by law. These forward-looking statements should not be relied upon as representing the Company’s views as of any date subsequent to the date hereof.

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Investigational Agents

The safety and efficacy of investigational agents and/or investigational uses of approved products have not been established.
### Unique Capabilities to Develop Next Generation Antibodies for Treating Cancer

#### Multiple Phase 2 Programs in Prostate Cancer

Promising initial data\(^{(a)}\) with potential for multiple 2024 data catalysts

**Studies:**
- **TAMARACK**
- **ORIKEET**
- **HEAT\(^{(c)}\)**

#### Broad Capabilities for Drug Conjugates

Experience in combining novel targets with differentiated drug-linker technology

#### Proprietary Platforms for Multispecifics

Flexible platforms with clinical and/or partner validation

#### Proven R&D Track Record

Three approved products generated from our pipeline\(^{(b)}\) fuel potential revenue

#### Well Funded to Deliver on Plan

$230M Cash as of 12/31/23, plus anticipated payments, should provide cash runway into 2026

---

\(^{(a)}\) See data slides previously presented (and included in this deck) that relate to both vobramitamab duocarmazine and lorigerlimab.

\(^{(b)}\) TZIELD® was sold to Provention Bio (Sanofi) and is marketed by Sanofi; ZYNYZ™ was licensed to, and is marketed by, Incyte.

\(^{(c)}\) The “Help Elucidate & Attack Longitudinally” (HEAT) neo-adjuvant prostate cancer study is an investigator-sponsored trial.
Multiple Opportunities to Impact Treatment Paradigm in Prostate Cancer

Prostate cancer remains 2nd leading cause of cancer death in U.S. (34.7k deaths in 2023(a))

---

**Vobra Duo**
(ADC)

- Phase 2 fully enrolled in mCRPC
- Initial clinical data expected at ASCO 2024

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**Lorigerlimab**
(Bispecific Checkpoint)

- Randomized Phase 2 in mCRPC
- Trial update expected in 2H24

---

**Enoblituzumab**
(Fc-optimized mAb)

- Phase 2 IST in neoadjuvant PC
- Initiated 1Q24

---

**Multiple potential first-in-class programs**

**Incorporate cutting-edge platform technologies**

**Complementary MoAs**

**Combine with SoC and other internal assets**

---

(a) Source: American Cancer Society (https://www.cancer.org/cancer/types/prostate-cancer/about/key-statistics.html)
Deep and Differentiated Proprietary Pipeline with Retained Commercial Rights

<table>
<thead>
<tr>
<th>Program (Target)</th>
<th>Potential Indication(s)</th>
<th>Modality/Platform</th>
<th>Preclinical</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Partner / Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vobramitamab Duocarmazine (B7-H3)</strong></td>
<td>mCRPC TIMARACK Study</td>
<td>ADC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NSCLC, SCLC, Melanoma, SCCHN, Anal Cancer</td>
<td>ADC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multiple Solid Tumors (+lorigerlimab)</td>
<td>ADC + DART®</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lorigerlimab (PD-1 x CTLA-4)</strong></td>
<td>mCRPC (+docetaxel) ORIKEET Study</td>
<td>DART</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Enoblituzumab (B7-H3)</strong></td>
<td>Neo-adj. Prostate Cancer HEAT Study&lt;sup&gt;(a)&lt;/sup&gt;</td>
<td>Fc-optimized mAb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tebotelimab&lt;sup&gt;(b)&lt;/sup&gt; (PD-1 x LAG-3)</strong></td>
<td>Solid Tumors &amp; Heme Malignancies</td>
<td>DART</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>MGC026 (B7-H3)</strong></td>
<td>Multiple Solid Tumors</td>
<td>ADC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MGC028 (ADAM9)</strong></td>
<td>Multiple Solid Tumors</td>
<td>ADC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The safety and efficacy of investigational agents and/or investigational uses of approved products have not been established. Pipeline reflects current status of each program or most recently completed phase of development.

<sup>(a)</sup> The “Help Elucidate & Attack Longitudinally” (HEAT) study is an investigator-sponsored trial.

<sup>(b)</sup> MacroGenics currently has no active/ongoing tebotelimab studies.

March 7, 2024
## Partnered Programs: Potential Future Cash Flow & Platform Validation

<table>
<thead>
<tr>
<th>Program (Target)</th>
<th>Potential Indication(s)</th>
<th>Modality/Platform</th>
<th>Preclinical</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Marketed</th>
<th>Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MARGENZA®</strong> (HER2)</td>
<td>HER2+ Metastatic Breast Cancer</td>
<td>Fc-optimized mAb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Eversana (a)</strong></td>
</tr>
<tr>
<td><strong>ZYNYZ®</strong> (PD-1)</td>
<td>Merkel Cell Carcinoma</td>
<td>mAb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Incyte</strong></td>
</tr>
<tr>
<td></td>
<td>Squamous Cell Anal Carcinoma</td>
<td>mAb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Small Cell Lung Cancer</td>
<td>mAb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TZIELD®</strong> (CD3)</td>
<td>Stage 2 &quot;At Risk&quot; T1D</td>
<td>mAb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Sanofi</strong></td>
</tr>
<tr>
<td></td>
<td>Stage 3 &quot;Early Onset&quot; T1D</td>
<td>mAb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PRV-3279</strong> (CD32B × CD79B)</td>
<td>Systemic Lupus Erythematosus</td>
<td>DART</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Sanofi</strong></td>
</tr>
<tr>
<td><strong>MGD024</strong> (CD123 × CD3)</td>
<td>CD123+ Heme Malignancies</td>
<td>DART</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Exclusive Option <strong>Gilead</strong></td>
</tr>
<tr>
<td>Bispecific (Undisclosed)</td>
<td>Multiple Solid Tumors</td>
<td>DART/TRIDENT®</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Gilead</strong></td>
</tr>
</tbody>
</table>

$335M Non-dilutive funding achieved since mid-2022, with >$1B in potential milestones remaining from Sanofi and Incyte

The safety and efficacy of investigational agents and/or investigational uses of approved products have not been established. Pipeline reflects current status of each program or most recently completed phase of development. (a) MacroGenics entered risk-sharing collaboration with Eversana in November 2020, under which MacroGenics books U.S. sales and Eversana leads execution of U.S. commercialization of MARGENZA. For all other currently partnered programs for which a license option has been exercised, the partner would book any future worldwide sales, if approved, and MacroGenics would be entitled to receive milestones and royalties.
Uniquely Positioned to Develop Best-in-Class Antibody-Drug Conjugates

- Multiple technology partnerships
- Access to multiple validated classes of payloads and linker technologies
- First-in-class targets
- 20+ Years of antibody engineering expertise

Access to Proprietary Linker-Toxins

- Advancing multiple ADC candidates into clinic
- Commercial-scale mAb manufacturing and external ADC supply chain

Antibody Discovery

Development Capabilities

(Up to seven programs)
**Vobra Duo: Antibody-Drug Conjugate with Duocarmycin-based Linker Payload**

*TAMARACK Phase 2 study fully enrolled ahead of schedule; Anticipate initial clinical data at ASCO 2024*

---

**Function/ MoA**
- ADC that delivers potent duocarmycin payload to dividing and non-dividing B7-H3-expressing cells
- Cleavable peptide linker facilitates bystander effect
- Not subject to multi-drug resistance (MDR)

**Clinical Results**
- Preliminary results of mCRPC Phase 1 cohort expansion presented at ESMO 2021

**Anticipated Milestones**
- Anticipate initial clinical data presentation at ASCO 2024
  - Updated clinical data, including rPFS (expected 2H24)
- Plan to initiate additional dose expansion indications in NSCLC, SCLC, melanoma, SCCHN and anal cancer (mid-2024)
- Progress enrollment of combination study with lorigerlimab

---

Duocarmycin payload and cleavable peptide linker technology was licensed from Byondis, B.V., The Netherlands. mCRPC = metastatic castration-resistant prostate cancer. Vobramitamab duocarmazine (vobra duo, previously known as MGC018) is investigational and has not yet been approved for marketing by any regulatory authority.
# Vobra Duo: Baseline Patient Characteristics for mCRPC Expansion Cohort

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>mCRPC (n=40)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age, years</strong></td>
<td></td>
</tr>
<tr>
<td>Mean ± SD</td>
<td>69.7 ± 7.02</td>
</tr>
<tr>
<td>Median (range)</td>
<td>70.0 (52.0, 83.0)</td>
</tr>
<tr>
<td><strong>Gender, n (%)</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0</td>
</tr>
<tr>
<td>Male</td>
<td>40 (100)</td>
</tr>
<tr>
<td><strong>Ethnicity, n (%)</strong></td>
<td></td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>36 (90.0)</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>1 (2.5)</td>
</tr>
<tr>
<td>Not Reported</td>
<td>3 (7.5)</td>
</tr>
<tr>
<td><strong>ECOG performance status, n (%)</strong></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>17 (42.5)</td>
</tr>
<tr>
<td>1</td>
<td>23 (57.5)</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Number of prior therapies for advanced disease, median (range)</strong></td>
<td>3 (2-7)</td>
</tr>
<tr>
<td>Prior chemotherapy, n (%)</td>
<td>40 (100)</td>
</tr>
<tr>
<td>Prior anti-PD-1/PD-L1, n (%)</td>
<td>7 (17.5)</td>
</tr>
<tr>
<td>Prior TKI, n (%)</td>
<td>7 (17.5)</td>
</tr>
<tr>
<td>Next generation hormonal therapy, n (%)</td>
<td>40 (100)</td>
</tr>
<tr>
<td><strong>B7-H3 score (vasculature score), median (range)</strong>(a)</td>
<td>1 (0-3)</td>
</tr>
<tr>
<td><strong>B7-H3 score (H-score), median (range)</strong>(a)</td>
<td>222.5 (24-300)(b)</td>
</tr>
<tr>
<td><strong>Baseline PSA (ng/mL)</strong></td>
<td></td>
</tr>
<tr>
<td>Mean ± SD</td>
<td>269.9 ± 693.83</td>
</tr>
<tr>
<td>Median (range)</td>
<td>89.8 (5.3, 4302.0)</td>
</tr>
</tbody>
</table>

(a) Recombinant anti-CD276 antibody, SP206 (Abcam, Toronto, Ontario, CA). (b) 30 of 41 with H-scores reported.

March 7, 2024

ESMO 2021 (Shenderov, et al., #620P); 8/16/21 data cut-off

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**Legend:**
- ECOG = Eastern Cooperative Oncology Group
- mCRPC = metastatic castration-resistant prostate cancer
- NA = not applicable
- PD-1 = programmed death protein 1
- PD-L1 = programmed death-ligand 1
- PSA = prostate-specific antigen
- SD = standard deviation
- TKI = tyrosine kinase inhibitor
Vobra Duo: Best Percent Change of Target Lesions in mCRPC Expansion Cohort

Tumor response-evaluable population\(^{(a)}\)

4 of 16 Patients (25%) had reductions in target lesion sums from baseline of $\geq 30\%$ (two confirmed PRs and two unconfirmed PRs)

\(^{(a)}\) Patients who received at least one dose and had at least one post-baseline evaluation.

mCRPC=metastatic castration-resistant prostate cancer; NA=not available; UE=unevaluable due to insufficient viable tumor.

ESMO 2021 (Shenderov, et al., #620P); 8/16/21 data cut-off
Vobra Duo: Best Percent Change of PSA in mCRPC Expansion Cohort

**Tumor response-evaluable population**

- 39 Patients were evaluable for PSA response:
  - 21 (54%) had reductions in PSA from baseline of >50%
  - 24 (62%) remained on treatment

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**Vobra Duo**

**MGC026**

**MD024**

**Lorigerlimab**

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ESMO 2021 (Shenderov, et al., #620P); 8/16/21 data cut-off

March 7, 2024
## Vobra Duo: Summary of Adverse Events

### Overall Summary of Adverse Events\(^{(a)}\)

<table>
<thead>
<tr>
<th></th>
<th>Treatment Emergent, n (%)</th>
<th>Treatment Related, n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any AE</td>
<td>83 (96.5)</td>
<td>78 (90.7)</td>
</tr>
<tr>
<td>Any Grade ≥3 AE</td>
<td>48 (55.8)</td>
<td>43 (50.0)</td>
</tr>
<tr>
<td>Any SAE</td>
<td>29 (33.7)</td>
<td>24 (27.9)</td>
</tr>
<tr>
<td>Any deaths</td>
<td>2 (2.3)</td>
<td>1 (1.2)(^{(c)})</td>
</tr>
<tr>
<td>AE of special interest (AESIs)</td>
<td>11 (12.8)</td>
<td>NA</td>
</tr>
<tr>
<td>AEs leading to MGC018 discontinuation</td>
<td>7 (8.1)</td>
<td>6 (7.0)</td>
</tr>
<tr>
<td>AEs leading to MGC018 dose reductions</td>
<td>18 (20.9)</td>
<td>18 (20.9)</td>
</tr>
<tr>
<td>AEs leading to MGC018 interruption</td>
<td>41 (47.7)</td>
<td>39 (45.3)</td>
</tr>
</tbody>
</table>

### Treatment-Related Adverse Events\(^{(a)}\) Reported in ≥10% of Patients\(^{(b)}\)

<table>
<thead>
<tr>
<th></th>
<th>Any Grade, n (%)</th>
<th>Grade ≥3, n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatigue</td>
<td>32 (37.2)</td>
<td>1 (1.2)</td>
</tr>
<tr>
<td>Neutropenia</td>
<td>29 (33.7)</td>
<td>19 (22.1)</td>
</tr>
<tr>
<td>Palmar-plantar eryth. syndrome</td>
<td>27 (31.4)</td>
<td>3 (3.5)</td>
</tr>
<tr>
<td>Pleural effusion</td>
<td>20 (23.3)</td>
<td>1 (1.2)</td>
</tr>
<tr>
<td>Nausea</td>
<td>19 (22.1)</td>
<td>1 (1.2)</td>
</tr>
<tr>
<td>Asthenia</td>
<td>17 (19.8)</td>
<td>4 (4.7)</td>
</tr>
<tr>
<td>Anemia</td>
<td>16 (18.6)</td>
<td>5 (5.8)</td>
</tr>
<tr>
<td>Decreased appetite</td>
<td>16 (18.6)</td>
<td>1 (1.2)</td>
</tr>
<tr>
<td>Edema peripheral</td>
<td>16 (18.6)</td>
<td>0</td>
</tr>
<tr>
<td>Headache</td>
<td>15 (17.4)</td>
<td>0</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>13 (15.1)</td>
<td>1 (1.2)</td>
</tr>
<tr>
<td>Thrombocytopenia</td>
<td>12 (14.0)</td>
<td>6 (7.0)</td>
</tr>
<tr>
<td>Pyrexia</td>
<td>11 (12.8)</td>
<td>2 (2.3)</td>
</tr>
<tr>
<td>Pruritus</td>
<td>11 (12.8)</td>
<td>0</td>
</tr>
<tr>
<td>Rash</td>
<td>11 (12.8)</td>
<td>2 (2.3)</td>
</tr>
<tr>
<td>Skin hyperpigmentation</td>
<td>11 (12.8)</td>
<td>0</td>
</tr>
</tbody>
</table>

\(^{(a)}\) Data cut-off: 8/16/21; \(^{(b)}\) ESMO 2021 (Shenderov, et al., #620P)
Vobra Duo: mCRPC Phase 2 Study Design Summary

Fully enrolled ahead of schedule – 177 patients dosed; Initial clinical data anticipated ASCO 2024

Key Eligibility Criteria:
- mCRPC
- One prior ARAT
- Up to one prior docetaxel-containing regimen(a)
- ≤ 3 Prior lines of therapy for mCRPC

Stratification Factors:
- Visceral disease (yes vs. no)
- Prior taxane (yes vs. no)
- Region (US/Canada vs. other)

N=91
Experimental Arm A
Vobramitamab duocarmazine
2.0 mg/kg Q4W

N=86
Experimental Arm B
Vobramitamab duocarmazine
2.7 mg/kg Q4W

Primary Endpoint: rPFS
Key Secondary Endpoints:
AEs, PSA outcomes, ORR, DoR, SSEs, PK, ADA, nAb

(a) Participants who received an additional taxane or second ARAT (androgen receptor axis-targeted agent [abiraterone, enzalutamide or apalutamide]) for <60 days as bridging therapy while awaiting lutetium-177 vipivotide tetraxetan are also eligible. Other prior chemotherapy for prostate cancer is not allowed.

mCRPC=metastatic castration-resistant prostate cancer; ORR=objective response rate; PSA=prostate-specific antigen; Q4W=every 4 weeks; R=randomize; rPFS=radiographic progression-free survival.
MGC026: Complementary Program Employing Proprietary TOP1i Linker Payload

Second molecule in our B7-H3 ADC franchise

---

**Function/ MoA**
- B7-H3 overexpressed in multiple tumor types and correlates with poor prognosis
- Employs Synaffix’s proprietary ADC platform
  - GlycoConnect™ site-specific Fc conjugation with protease cleavable link for enhanced efficacy and safety
  - Hydraspace™ highly-polar spacer technology for increased stability and therapeutic index
  - SYNtecan E™ proprietary linker-payload for ADCs (DAR ~4) (exatecan is active catabolite)

**Rationale / Positioning**
- Complementary approach to vobra duo for targeting B7-H3
- Potential differentiation of exatecan vs. deruxtecan (DXd)\(^{(a)}\)
  - 2-5x higher potency
  - Less susceptible to efflux/multi-drug resistance (MDR)
  - Exhibits superior cell permeability & bystander effect

**Status**
- Phase 1 dose escalation enrolling

---


MGC026 is investigational and has not yet been approved for marketing by any regulatory authority.
## Potential to Differentiate from Other TOP1i ADC Programs

<table>
<thead>
<tr>
<th></th>
<th>Exatecan</th>
<th>SN-38</th>
<th>Deruxtecan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Potency</strong>&lt;sup&gt;(a)&lt;/sup&gt;</td>
<td>Sub-nM</td>
<td>3-10x Less Potent</td>
<td>2-5x Less Potent</td>
</tr>
<tr>
<td><strong>Linker</strong></td>
<td>HydraSpace™ &amp; Val-Ala Protease-Cleavable</td>
<td>CL2A pH sensitive</td>
<td>GGFG Protease Cleavable</td>
</tr>
<tr>
<td><strong>Conjugation</strong></td>
<td>Site-Specific at Glycan (N297)</td>
<td>Native Cysteines</td>
<td>Native Cysteines</td>
</tr>
<tr>
<td><strong>Less Sensitivity to Efflux/MDR Avoidance</strong>&lt;sup&gt;(a)&lt;/sup&gt;</td>
<td>+++</td>
<td>++</td>
<td>+</td>
</tr>
</tbody>
</table>

**SYNtecan E ADC (DAR4)**
- Outperforms Trastuzumab Deruxtecan (DAR8) in Syngeneic Mice<sup>(b)</sup>

---


<sup>(b)</sup> Data generated by Synaffix; presented at World ADC 2023.
MGC026: SYNtecan ADC Exhibits Favorable Profile Compared to DXd-based ADC

*In vivo efficacy in preclinical CDx models*
MGC028: Next-Generation, Preclinical ADAM9 ADC

**Function/ MoA**
- ADAM9 plays role in tumorigenesis and cancer progression and is over-expressed in multiple cancers
- Employs Synaffix’s proprietary ADC platform
  - GlycoConnect™ site-specific Fc conjugation with protease cleavable link for enhanced efficacy and safety
  - Hydraspace™ highly-polar spacer technology for increased stability and therapeutic index
  - SYNtecan E™ proprietary linker-payload for ADCs (DAR ~4) (exatecan is active catabolite)

**Rationale / Positioning**
- In cynomolgus pilot tox, no observed ocular toxicities, which are typically seen with maytansinoid payloads
  - Observed in earlier cyno tox with maytansinoid-based ADC\(^{(a)}\)

**Status**
- 4Q24 IND submission anticipated

---

MGC028: Promising Product Profile Based on Preclinical Data

Supports broad clinical development opportunity across multiple solid tumors

Broad Range of Indications Which May be More Susceptible to TOP1i-Based Payload

<table>
<thead>
<tr>
<th>Tumor Type</th>
<th>H-Score</th>
<th>% of Tumors with Indicated H-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pancreatic</td>
<td>201-300</td>
<td>15%</td>
</tr>
<tr>
<td>Gastric</td>
<td>101-200</td>
<td>27%</td>
</tr>
<tr>
<td>Adeno NSCLC</td>
<td>1-100</td>
<td>30%</td>
</tr>
<tr>
<td>TNBC</td>
<td>1-100</td>
<td>35%</td>
</tr>
<tr>
<td>CRC</td>
<td>1-100</td>
<td>20%</td>
</tr>
<tr>
<td>Squamous NSCLC</td>
<td>1-100</td>
<td>6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tumor Type</th>
<th>H-Score</th>
<th>% of Tumors with Indicated H-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pancreatic</td>
<td>201-300</td>
<td>55%</td>
</tr>
<tr>
<td>Gastric</td>
<td>101-200</td>
<td>46%</td>
</tr>
<tr>
<td>Adeno NSCLC</td>
<td>1-100</td>
<td>56%</td>
</tr>
<tr>
<td>TNBC</td>
<td>1-100</td>
<td>55%</td>
</tr>
<tr>
<td>CRC</td>
<td>1-100</td>
<td>13%</td>
</tr>
<tr>
<td>Squamous NSCLC</td>
<td>1-100</td>
<td>83%</td>
</tr>
</tbody>
</table>

H-Score: □ 201-300 □ 101-200 □ 1-100 □ Negative

Potent Activity Observed Across PDX Models with Range of ADAM9 Expression

Colorectal Cancer H-score = 105

Pancreatic Cancer H-score = 185

NSCLC H-score = 224

Vehicle

MGC028 [10 mg/kg Q2W x 2]
Lorigerlimab (PD-1 × CTLA-4): DART Molecule w/Two Validated Checkpoint Targets

**Function/MoA**
- Simultaneous and/or independent blockade of two validated checkpoint inhibitor molecules

**Clinical Results**
- Ph. 1 dose expansion results presented at ASCO-GU 2023:
  - Manageable safety profile in advanced solid tumors (n=127 patients at dose of 6.0 mg/kg Q3W)
  - Preliminary evidence of durable anti-tumor activity in mCRPC population refractory to chemo and ARAT (confirmed ORR = 25.7%, confirmed PSA50 response rate = 28.6%)

**Program Activities**
- Enrolling combination study w/vobra duo in solid tumors
- Enrolling randomized LORIKEET Phase 2 study in mCRPC

**ARAT=androgen receptor axis-targeted agent (abiraterone, enzalutamide or apalutamide)**

**Lorigerlimab (formerly MGD019) is investigational and has not yet been approved for marketing by any regulatory authority**

**ASCO-GU 2023 (Luke, et al., #155); 12/12/22 data cut-off**

---

**Diagram:**
- CTLA-4
- PD-1
- IgG4
Lorigerlimab: Durable Anti-tumor Activity Shown in Refractory mCRPC Population

42 Patients with mCRPC received lorigerlimab @ 6 mg/kg Q3W during dose expansion phase

**Baseline Characteristics (n=42)**

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Median (range)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>67 (55-79)</td>
</tr>
<tr>
<td><strong>ECOG performance status</strong></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>12 (28.6)</td>
</tr>
<tr>
<td>1</td>
<td>30 (71.4)</td>
</tr>
<tr>
<td><strong>Location of metastatic disease</strong></td>
<td></td>
</tr>
<tr>
<td>Bone</td>
<td>40 (95.2)</td>
</tr>
<tr>
<td>Liver</td>
<td>11 (26.2)</td>
</tr>
<tr>
<td>Lung</td>
<td>8 (19.0)</td>
</tr>
<tr>
<td><strong>Baseline SLD, mm</strong></td>
<td></td>
</tr>
<tr>
<td>Median (range)</td>
<td>48 (10-207)</td>
</tr>
<tr>
<td><strong>Baseline PSA, ng/mL</strong></td>
<td></td>
</tr>
<tr>
<td>Median (range)</td>
<td>94 (11-2523)</td>
</tr>
<tr>
<td><strong>Prior lines of systemic therapy</strong></td>
<td></td>
</tr>
<tr>
<td>Median (range) prior lines</td>
<td>2 (1-9)</td>
</tr>
<tr>
<td>1</td>
<td>7 (16.7)</td>
</tr>
<tr>
<td>2</td>
<td>15 (35.7)</td>
</tr>
<tr>
<td>3</td>
<td>9 (21.4)</td>
</tr>
<tr>
<td>4+</td>
<td>11 (26.2)</td>
</tr>
<tr>
<td><strong>Prior systemic therapy</strong></td>
<td></td>
</tr>
<tr>
<td>Docetaxel</td>
<td>35 (83.3)</td>
</tr>
<tr>
<td>AR inhibitor</td>
<td>34 (81)</td>
</tr>
<tr>
<td>PARP inhibitor</td>
<td>5 (11.9)</td>
</tr>
<tr>
<td>Cabazitaxel</td>
<td>6 (14.3)</td>
</tr>
</tbody>
</table>

**Status of Patients**

**Majority of patients refractory to ARAT and taxane and with extensive tumor burden at study entry**

ASCO-GU 2023 (Luke, et al., #155); 12/12/22 data cut-off
Lorigerlimab: Efficacy Summary in mCRPC

Confirmed ORR = 25.7%, PSA50 response rate = 28.6%

Best % Change of Target Lesions

Best Overall Response in mCRPC Cohort (N=35)

- cPR, n (%) = 9 (25.7)
- SD, n (%) = 11 (31.4)
- PD, n (%) = 15 (42.9)

Confirmed ORR, % (95% CI) = 25.7 (12.5-43.3)

Includes 32 patients who received ≥1 dose, had measurable disease, and ≥1 post-baseline tumor evaluation

• Median exposure: 19.2 weeks (range: 3.3-55.1 weeks); median of 5 infusions/patient
• All patients with objective response had >90% reduction in PSA from baseline
• Among 9 patients with obj. response: 4 remained on study, 5 discontinued (unrelated AEs [4] and physician decision [1])

Best % Change of PSA

PSA-Confirmed Response Rates in mCRPC Cohort (N=42)

| PSA50 response rate, n (%) | 12 (28.6) |
| PSA50 responders with response ≥3 mo, % | 75 |
| PSA90 response rate, n (%) | 9 (21.4) |

95% CI: 15.7-44.6, 10.3-36.8

Response defined as ≥50%/90% decline from baseline with confirmation ≥8 wks later.

Includes patients who received ≥1 dose, had baseline PSA ≥ 2 ng/ml, and had ≥1 post-baseline PSA evaluation
Lorigerlimab: Manageable Safety Observed in Advanced Solid Tumor Population

Safety population N=127 (118 patients from expansion cohorts, 9 from dose escalation)

**Summary of Adverse Events**

<table>
<thead>
<tr>
<th>Event</th>
<th>All Grade, n (%)</th>
<th>Grade ≥3, n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any AE (all causality)</td>
<td>125 (98.4)</td>
<td>79 (62.2)</td>
</tr>
<tr>
<td>Treatment-related AEs</td>
<td>110 (86.6)</td>
<td>45 (35.4)</td>
</tr>
<tr>
<td>SAEs (all causality)</td>
<td>50 (39.4)</td>
<td>44 (34.6)</td>
</tr>
<tr>
<td>Treatment-related SAEs</td>
<td>22 (17.3)</td>
<td>18 (14.2)</td>
</tr>
<tr>
<td>AEs leading to lorigerlimab discontinuation</td>
<td>32 (25.2)</td>
<td>27 (21.3)</td>
</tr>
<tr>
<td>AEsIs</td>
<td>40 (31.5)</td>
<td>16 (12.6)</td>
</tr>
<tr>
<td>Immune-related AEs</td>
<td>31 (24.4)</td>
<td>10 (7.9)</td>
</tr>
</tbody>
</table>

- **Safety population**: 127 patients received ≥1 dose of lorigerlimab at 6 mg/kg
- **Median exposure**: 14.4 weeks (range: 1.9–100.1)

**Common Adverse Events**

- Fatigue
- Rash
- Pruritus
- Hypothyroidism
- Pyrexia
- Hyperthyroidism
- Anemia
- Decreased appetite
- Infusion-related reaction
- Lipase increased
- Alanine aminotransferase increased
- Aspartate aminotransferase increased
- Arthralgia
- Diarrhea
- Gama-glutamyl transferase increased
- Amylase increased
- Nausea
- Blood alkaline phosphatase increased
- Myalgia
- Rash macular

- **Treatment-Related AEs**
- **All Causality AEs**

ASCU-GU 2023 (Luke, et al., #155); 12/12/22 data cut-off
## Background: Immune Checkpoint Inhibitors in mCRPC

<table>
<thead>
<tr>
<th>Previous Treatments</th>
<th>Lorigerlimab mCRPC Cohort (Interim Data)(^{(a)})</th>
<th>CheckMate 650(^{(b)}) Phase 2 Nivolumab + Ipilimumab Part II</th>
<th>KEYNOTE-199(^{(c)}) Phase 2 Pembrolizumab</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>Median # prior lines: 2 (range: 1-9)</td>
<td>73 (43 Measurable)</td>
<td>133 RETIST-measurable, PD-L1+</td>
</tr>
<tr>
<td></td>
<td>42 (35 Measurable)</td>
<td>74 (41 Measurable)</td>
<td>66 RETIST-measurable, PD-L1-</td>
</tr>
<tr>
<td>Dosing</td>
<td>6 mg/kg Q3W</td>
<td>Nivo (3 mg/kg) + Ipi (1 mg/kg) Q3W x 4 doses(^{*})</td>
<td>200mg Q3W</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Median # ipi doses: 4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nivo (1 mg/kg) Q3W x 8 doses + Ipi (3 mg/kg) Q6W x 4 doses(^{^})</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Median # ipi doses: 2)</td>
<td></td>
</tr>
<tr>
<td>Median rPFS</td>
<td>NA</td>
<td>3.9 mos.</td>
<td>2.1 mos.</td>
</tr>
<tr>
<td>Median OS</td>
<td></td>
<td>15.9 mos.</td>
<td>9.5 mos.</td>
</tr>
<tr>
<td>PSA50 response</td>
<td>28.6% (12/42)(^{(d)})</td>
<td>13.8% (9/65)</td>
<td>6%</td>
</tr>
<tr>
<td>ORR (%)</td>
<td>25.7%* (9/35)</td>
<td>19.5% (8/41)</td>
<td>5%</td>
</tr>
<tr>
<td>Treatment-Related AE Grade 3+</td>
<td>35.4% (N=127)</td>
<td>29%</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Grade 5 Pneumonitis</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Grade 5 Colitis</td>
<td></td>
</tr>
<tr>
<td>AE Leading to Discontinuation</td>
<td>25.2% (N=127)</td>
<td>15% Treatment-Related</td>
<td>5% Treatment Related</td>
</tr>
</tbody>
</table>

\(^{(a)}\) Luke, et al., J Clin Oncol 41, 2023 (suppl 6; abstr 155) - ASCO-GU’23 (data cut-off: 12 December 2022);  
\(^{(b)}\) Sharma, et al., J Clin Oncol 41, 2023 (suppl 6; abstr 22) - ASCO-GU’23;  
\(^{(c)}\) Antonarakis, et al., J Clin Oncol 38, 2020:395-405;  
\(^{(d)}\) Lorigerlimab PSA90 23.8% (10/42 patients)  
NHT=next-generation hormonal therapy (e.g., abiraterone, enzalutamide); NA=not available; AE=Adverse Event;  
*=ORR calculated based on N=35 with measurable disease per RECIST v1.1 at study entry; ^=followed by nivolumab (480 mg Q4W)
Lorigerlimab + Docetaxel: Planned mCRPC Phase 2 Study Design Summary

**Study for patients who progress post-NHT; Enrollment ongoing**

**Key Eligibility Criteria:**
- mCRPC chemo-naive patients
- Received NHT for metastatic disease
- No prior chemotherapy for mCRPC
- Prior PARPi allowed

**Stratification Factors:**
- Disease Location
  - (bone only vs. visceral)
- Region

**Total n=150 Patients**
- Lorigerlimab 6 mg/kg Q3W
- Docetaxel 75 mg/m² Q3W
- Prednisone 5 mg BID

**Primary Endpoint:**
- rPFS

**Key Secondary Endpoints:**
- ORR(a), DOR, PSA50/90, Time to PSA Progression, mOS, Safety

(a) ORR measured according to Prostate Cancer Clinical Trials Working Group 3 (PCWG3) guidelines.
mCRPC = metastatic castration-resistant prostate cancer; NHT = next-generation hormonal therapy; ORR = objective response rate; PSA = prostate-specific antigen; Q3W = every 3 weeks; BID = twice per day; R = randomize; rPFS = radiographic progression-free survival; DOR = duration of response; mOS = median overall survival.
Vobra Duo + Lorigerlimab: Opportunity to Exploit Orthogonal MOAs

Preclinical Data

Phase 1 Combination Study

- Growing clinical validation around benefits of combining ADCs with immune checkpoints
- Synergy between ADCs and IO-agents can overcome treatment resistance
- Preclinical models have shown combination with anti-PD-1 enhances antitumor activity and induces immunological memory

(a) AACC 2020 - MGC018, a Duocarmycin-based Antibody-drug Conjugate Targeting B7-H3, Exhibits Immunomodulatory Activity and Enhanced Antitumor Activity in Combination with Checkpoint Inhibitors.

Planned Dose Expansion (2024)

mCRPC

Other Solid Tumors

CT26/huB7-H3

Mean Tumor Volume (mm³)

Day (post-inoculation)

Vobra duo Dosing

Anti-PD-1 Dosing

Vobra Duo + Lorigerlimab
q4W dosing

Patients with multiple solid tumors

Ongoing 3+3 Dose Escalation

Vobra duo 10 mg/kg

Anti-PD-1 10 mg/kg + Anti-PD-1 20 mg/kg

Vobra duo 10 mg/kg

Anti-PD-1 20 mg/kg

Vehicle

Rechallenge

RP2D
MGD024: Next Generation CD123 × CD3 DART Molecule

Leverages MacroGenics’ significant know-how in developing CD3-directed bispecifics

### Function/MoA
- Redirected T-cell killing against leukemia cells
  - Next generation CD3 variant minimizes cytokine release syndrome while maintaining cytolytic activity
  - Inclusion of Fc domain extends half-life to enable intermittent dosing

### Results
- Preclinical data presented at ASH 2021:
  - Anti-leukemic activity in vitro and in murine tumor models
  - Good tolerability in cynos with reduced cytokine release
  - PK profile consistent with dosing patient on weekly basis or longer interval
  - Combinable with standard-of-care agents

### Program Activities
- Ongoing Phase 1 dose escalation in hem. malignancies
- Commenced Gilead collaboration in October 2022

---

MGD024 is investigational and has not yet been approved for marketing by any regulatory authority.
MGD024: Favorable Cytokine Profile, Encouraging Combination Activity (in vivo)

Preclinical data presented at ASH 2021

**Improved Tolerability vs. Wild Type (WT) in Cynos**

**Interleukin-6**

![Graph showing interleukin-6 levels over time with different treatments.]

**MGD024 Enhances Anti-tumor Activity When Combined with Either Cytarabine (CYT) or Venetoclax (VEN)**

![Graph showing tumor volume over time with different treatments.]

Alderson, et al., ASH 2021
Key Anticipated 2024 Program Milestones

**Vobra Duo**  
*Anti-B7-H3 ADC*  
- Initial clinical data at ASCO, with update in 2H24  
- Initiate exp. cohorts (mid-'24)  
- Initiate dose exp. for combo study with lorigerlimab

**MGC026**  
*Anti-B7-H3 TOP1i ADC*  
- Phase 1 initiated  
- Preclinical data at AACR

**Lorigerlimab**  
*(PD-1 × CTLA-4 DART molecule)*  
- Trial update 2H24

**MGC028**  
*Anti-ADAM9 TOP1i ADC*  
- Preclinical data at AACR  
- Submit IND (2H24)

**Partnered Assets – Marketed**
- ZYNYZ clinical and regulatory updates (Incyte)  
- TZIELD clinical and regulatory updates (Sanofi)
Financial Overview

- $230M Cash, cash equivalents and marketable securities as of December 31, 2023
  - Cash runway into 2026 via anticipated and potential collaboration payments and product revenues\(^{(a)}\)

- Historical financial details:

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenues</td>
<td>$64</td>
<td>$105</td>
<td>$77</td>
<td>$152</td>
<td>$59</td>
</tr>
<tr>
<td>R&amp;D Expense</td>
<td>195</td>
<td>193</td>
<td>215</td>
<td>207</td>
<td>167</td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>241</td>
<td>236</td>
<td>280</td>
<td>273</td>
<td>227</td>
</tr>
<tr>
<td>Cash &amp; Investments</td>
<td>216</td>
<td>273</td>
<td>244</td>
<td>154</td>
<td>230</td>
</tr>
</tbody>
</table>

- Total revenues (primarily from collaborative agreements)

\(^{(a)}\) Cash runway guidance reflects anticipated expenditures related to Phase 2 TAMARACK clinical trial, Phase 2 LORIKEET study of lonigerlimab in mCRPC, and MacroGenics' other ongoing clinical and preclinical studies.
\(^{(b)}\) Does not include $150.9 million of Other Income ("Gain on royalty monetization arrangement").
\(^{(c)}\) Includes $150.9 million of Other Income ("Gain on royalty monetization arrangement").
Thank You!

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