First Quarter 2022
Financial and Operational Results

May 13, 2022

Forward-looking Statement Disclaimer

This press release contains forward-looking information under applicable securities law. All information that addresses activities or developments that we expect to occur in the future is forward-looking information. Forward-looking statements use such word as “will”, “may”, “potential”, “believe”, “expect”, “continue”, “anticipate” and other similar terminology. Forward-looking statements are based on the estimates and opinions of management on the date the statements are made. In the press release, such forward-looking statements include, but are not limited to, statements regarding the potential impact of the VITALIZE study and the anticipated date data from such study and from other ongoing studies of the Company are available, the Company’s ability to advance its development strategy, the potential to expand the Company’s pipeline through business development, the expected dosing timeline for the AVALON Phase 2B trial, the expected timing for data to be available from the Phase I clinical trial evaluating MVP-S and DPX-SurMAGE, the sufficiency of the Company’s cash position, the upcoming milestones discussed in this release, and the prospects for its lead immunotherapy and its other pipeline of immunotherapy candidates. However, they should not be regarded as a representation that any of the plans will be achieved. Actual results may differ materially from those set forth in this press release due to risks affecting the Company, including access to capital, the successful design and completion of clinical trials and the timely receipt of all regulatory approvals to commence, and then continue, clinical studies and trials and the receipt of all regulatory approvals to commercialize its products. IMV Inc. assumes no responsibility to update forward-looking statements in this press release except as required by law. These forward-looking statements involve known and unknown risks and uncertainties, and those risks and uncertainties include, but are not limited to, those related to the Company’s expected timeline associated with its cash runway; the Company’s priorities with MVP-S and its DPX delivery platform, the potential for its delivery platform and the anticipated timing of enrollment and results for its clinical trial programs and studies as others risks detailed from time to the Company’s ongoing quarterly and annual filings with Canadian securities regulators and the U.S. Securities and Exchange Commission. Investors. Investors are cautioned not to rely on these forward-looking statements and are encouraged to read IMV’s continuous disclosure documents, including its current annual information form, as well as its audited annual consolidated financial statements which are available on SEDAR at www.sedar.com and on EDGAR at www.sec.gov .

Agenda & Corporate Highlights

Andrew Hall, MSc
Chief Executive Officer

Agenda

Andrew Hall, MSc
Chief Executive Officer

Jeremy Graff, Ph.D
Chief Scientific Officer

Joy Bessenger
SVP, Investor Relations and Corp. Strategy

Brittany Davison, CPA, CA
SVP, Finance

Introduction
Andrew Hall, CEO

Corporate Highlights
Andrew Hall, CEO

Clinical and Translational Highlights
Jeremy Graff, CSO

Financial Highlights
Brittany Davidson, VP Finance

Questions & Answers

Our Vision

We are committed to creating a portfolio of immunotherapies, based on our novel immune-educating platform, that bridge the gap between effective cancer treatments and patients' quality of life.

Our Focus in 2022

1. Accelerate MVP-S towards registration in DLBCL and Ovarian Cancer,
2. Enhance IMV's pipeline through business development,
3. Enrich understanding of the DPX mechanism of action and its differentiation from prior cancer vaccine efforts through foundational science and translational research.

1Q 2022 - Highlights

Clinical efficacy of MVP-S in advanced, metastatic bladder cancer was presented at the AACR annual meeting

First patients dosed in the VITALIZE DLBCL study and in the Phase 1 non-muscle invasive bladder cancer study. We continue to enroll more patients in the breast cancer study.

We are activating clinical sites for the Phase 2B AVALON trial in patients with platinum-resistant ovarian cancer

We are advancing our business development initiatives to create a pipeline of DPX-based immunotherapies

Press Release

Michael P. Bailey,
President and Chief Executive Officer of AVEO Oncology

IMV Inc. Names Michael P. Bailey Chairman of The Board

Mr. Bailey has more than 30 years of pharmaceutical industry experience, having been instrumental in the commercial planning and launch of several new medicines across multiple oncology indications.

Clinical & Translational Updates

Jeremy Graff, PhD
Chief Scientific Officer

AACR Annual Meeting 2022 Showcasing the DPX Platform

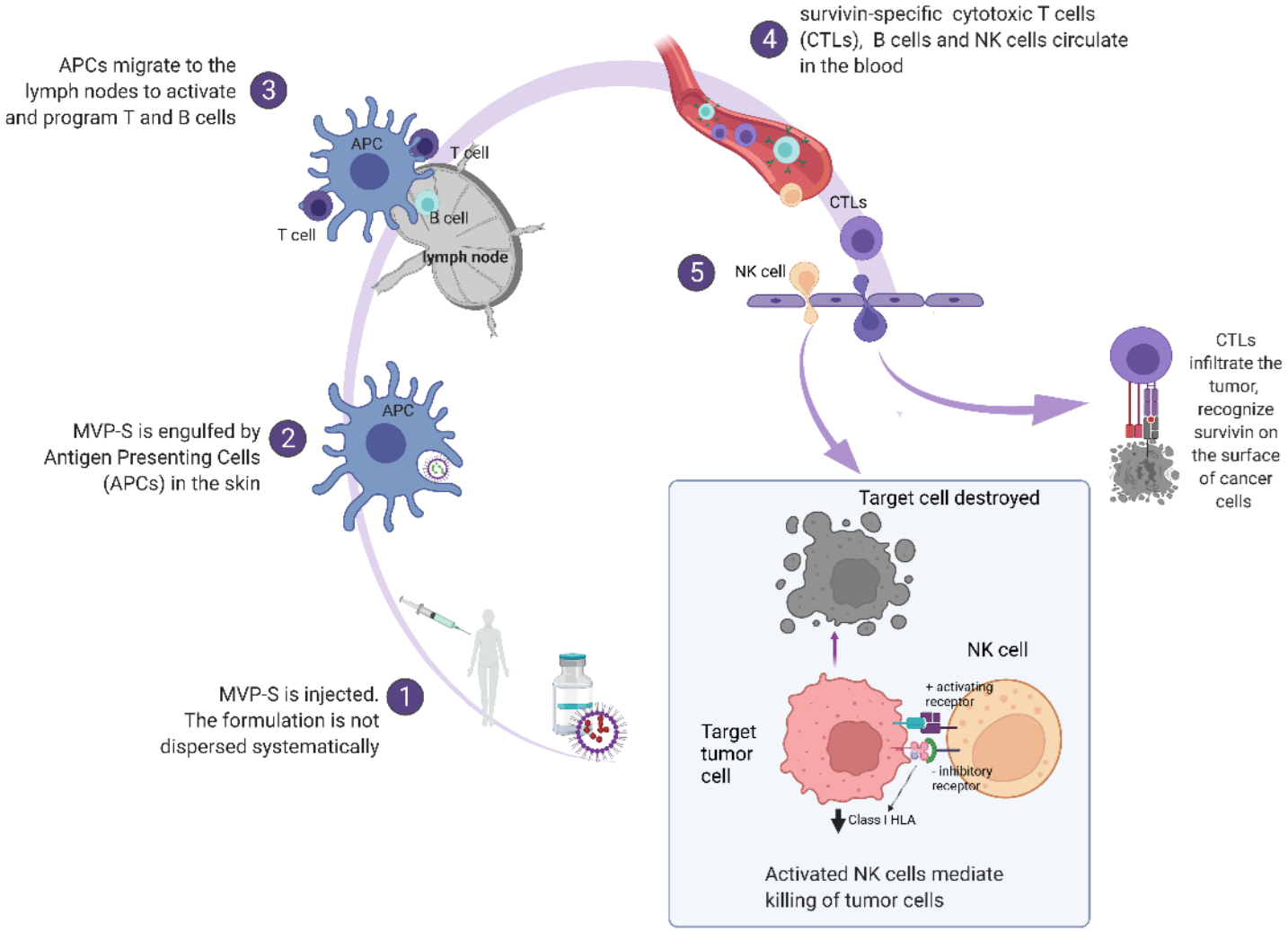
MVP-S MoA: NK Cells Promote Efficacy

- **NK cells are involved in promoting anti-tumor responses to DPX-peptide immunotherapy**
  - PO.IM02.14: Immune Response to Therapies 2 / Immune Monitoring and Clinical Correlates

MVP-S in Advanced, Metastatic Bladder Cancer

- **Safety, preliminary efficacy and pharmacodynamic (PD) analysis of maveropepimut-S, intermittent low-dose cyclophosphamide and pembrolizumab in patients with advanced, metastatic bladder cancer**
  - CT035: Immunotherapy Combination Strategies in Clinical Trials

NK Cells Are Involved in Promoting Anti-tumor Responses to DPX-peptide Immunotherapy

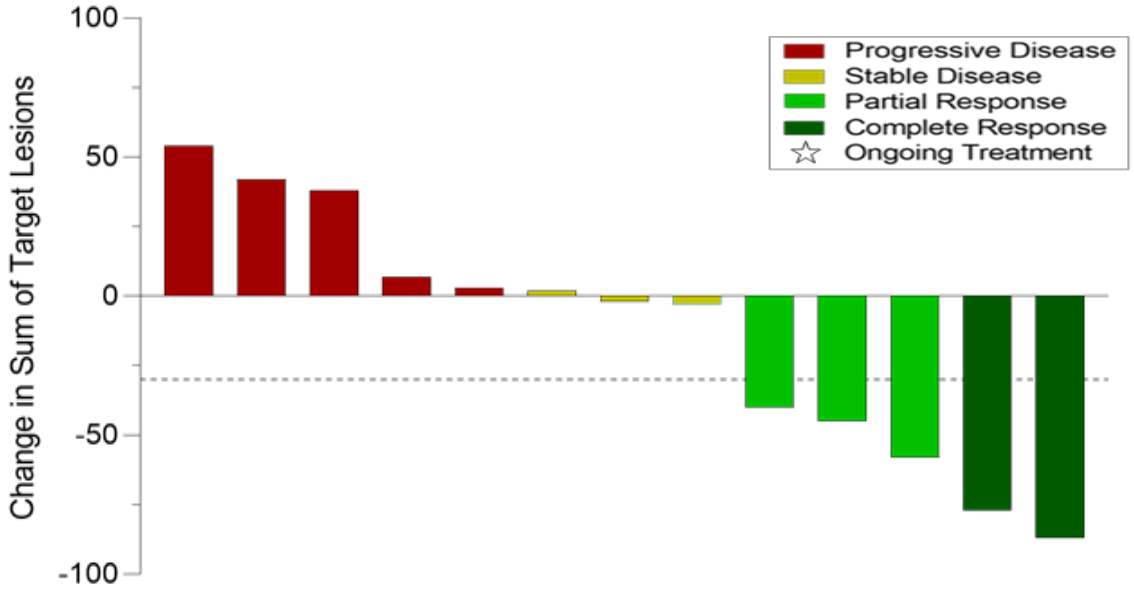


- Preclinical studies suggest that immunization with DPX-peptide formulation **enables tumor control** even in the absence of T or B cell function. Responses to the DPX-peptide therapy are partially mediated by **NK-perforin dependent** mechanisms.
- Evaluation of tumor biopsies collected from subjects treated with MVP-S based therapy revealed **increased expression of cytolytic NK markers and enhanced infiltration** of resting NK cells in patients with favorable outcome.
- Results from clinical/translational studies and preclinical models suggest a **distinct role for NK cells**, in addition to the previously recognized role for T and B cells, in DPX-mediated immunotherapeutic efficacy.

MVP-S/ CPA in Combination With Pembrolizumab in Patients With Advanced, Metastatic Bladder Cancer

- **Treatment was well-tolerated**
  - mostly Grade 1-2 injection site reactions
  - no severe adverse events attributed to MVP-S
- **Of the 17 treated patients, 5 showed response**
  - 2 Complete (CR), 3 Partial Responses (PR) per RECIST
  - Responsive lesions – lymph nodes as well as liver
- **CRs/PRs in patients with prior checkpoint inhibitors**
- **Survivin-specific T cells most evident in responders**

Best Response per RECIST v1.1 (n =13)



Further clinical study for the combination of MVP-S, pembrolizumab and low-dose, intermittent CPA in advanced, metastatic bladder cancer is warranted

Case Study 3 - 66 year old male (PR)

Background:

Baseline tumor: 110.31 mm

4 Target Lesions:

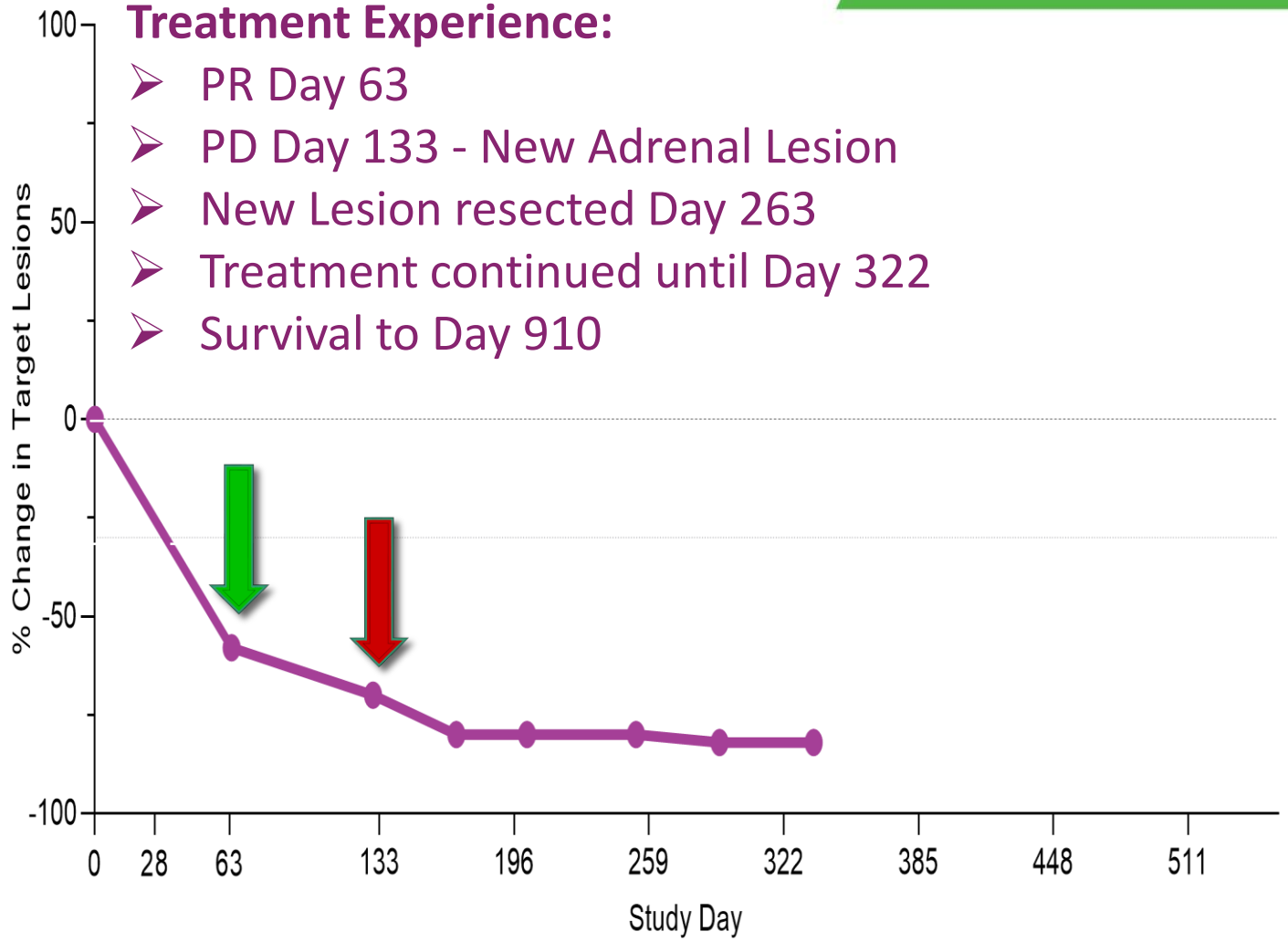
- 2 Liver
- Para-iliac LN
- Para-aortic LN

5 Non-Target Lesions: 4 LN, 1 Liver

Prior Tx: None

Treatment Experience:

- PR Day 63
- PD Day 133 - New Adrenal Lesion
- New Lesion resected Day 263
- Treatment continued until Day 322
- Survival to Day 910



Case Study 4- 56 year old female (CR)

Background:

Baseline tumor: 16.95mm

Target Lesion: Para-aortic LN

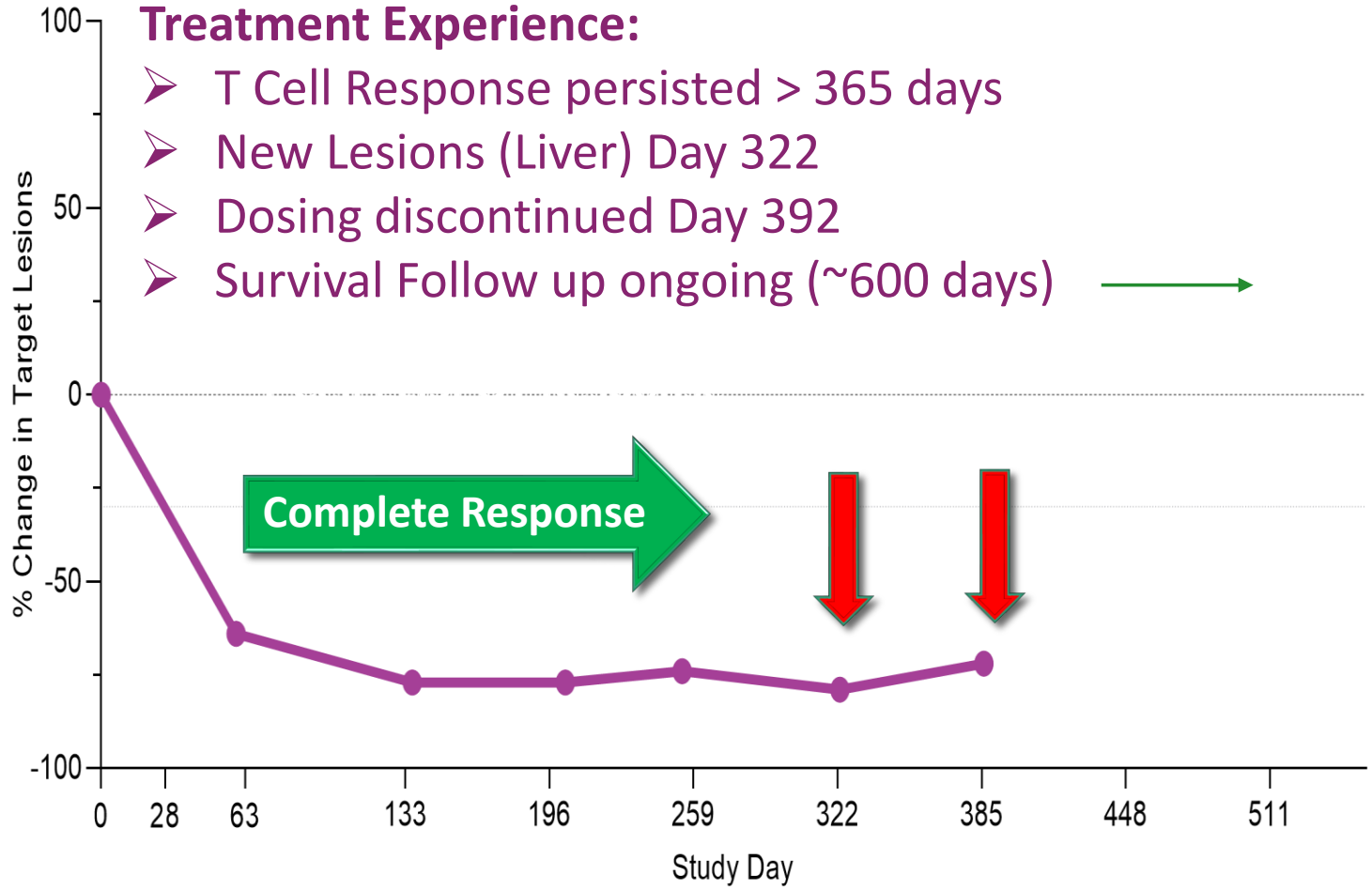
Non-target Lesion: Para-aortic LN

Prior Tx: 3

Last Tx: Atezo, 12 month SD

Treatment Experience:

- T Cell Response persisted > 365 days
- New Lesions (Liver) Day 322
- Dosing discontinued Day 392
- Survival Follow up ongoing (~600 days)



Case Study 5 - 73 year old female (CR)

Background:

Baseline tumor: 51.28 mm

Target Lesions:

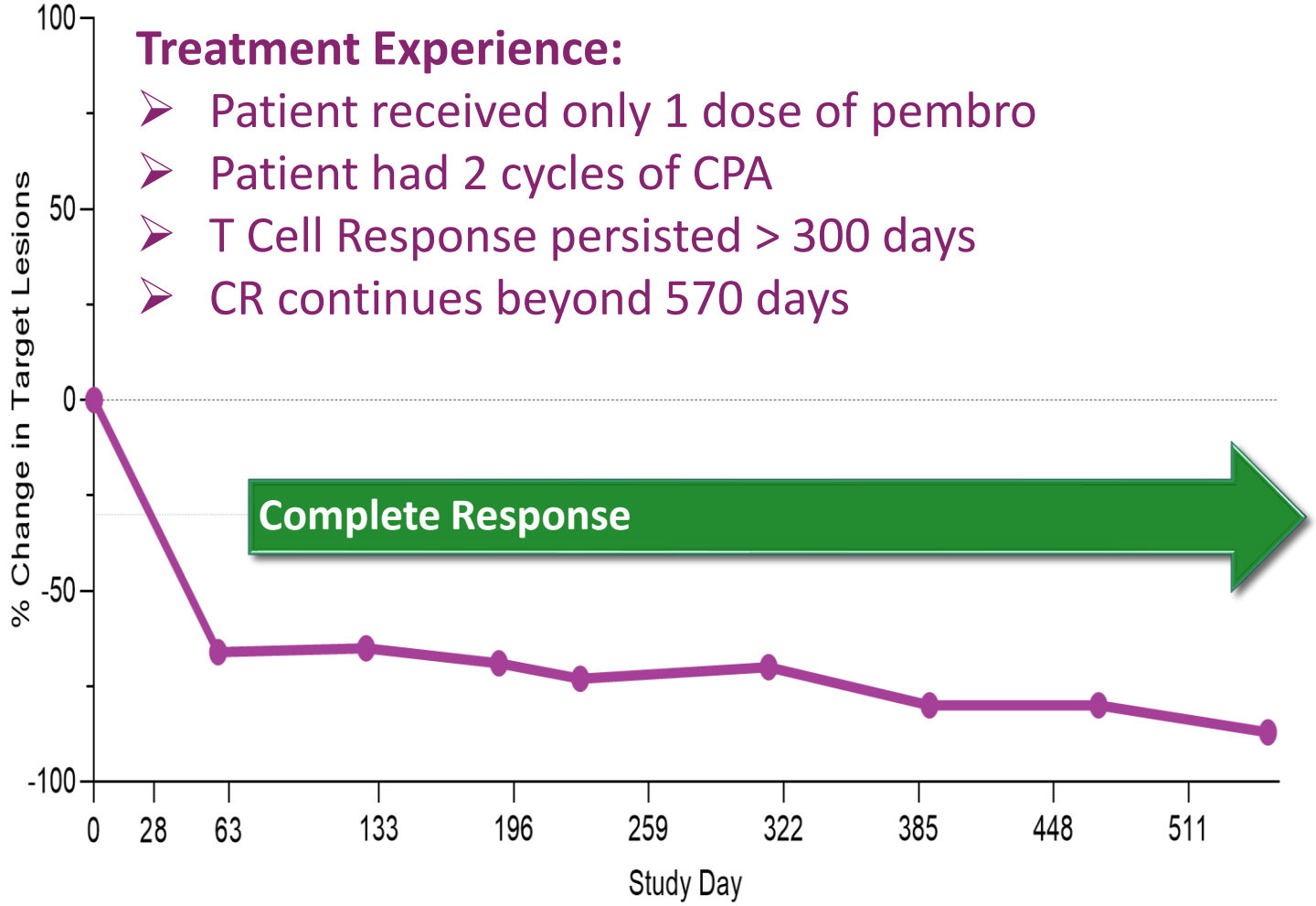
- Para-aortic LN
- Supraclavicular LN

Prior Tx: 1

Last Tx: Pembro, 12 month PR

Treatment Experience:

- Patient received only 1 dose of pembro
- Patient had 2 cycles of CPA
- T Cell Response persisted > 300 days
- CR continues beyond 570 days



Clinical and Translational Update Summary

VITALIZE (ph2 r DLBCL)- enrolled first patients, opening new countries and activating additional sites

- First results expected Q3, 2022

AVALON (ph2 Ovarian)- site activation is ongoing, on-track for Q3 2022

- First patient expected Q3, 2022

Bladder Cancer

- Advanced/ metastatic bladder cancer study design in development

DPX-SurMAGE cohort 2 expected to start Q3-4/ 2022

- NMIBC- enrolled first patients on MVP-S cohort

Breast Cancer Neoadjuvant study- enrolled half of the first cohort (MVP-S + letrozole)

- Targeting San Antonio Breast Cancer Symposium, December 2022 for presentation of early results

Scientific Mechanism Studies

- Natural Killer Cells are critical for DPX-mediated efficacy
- Advances the understanding that DPX activates a comprehensive immune response

Q1 2022 Financial Results

Brittany Davison, CPA, CA
Sr. Vice President, Finance

Q1 2022 Financial Results

	(in Thousands of US Dollars)		
	Q1 2022	**Q1 2021**	**Change ($)**
Total income	24	69	(45)
Expenses			
Research and development	6,631	4,744	1,887
General and administrative	3,990	3,161	829
Government assistance	(378)	(1,234)	856
Accreted interest and valuation adjustments	304	355	(51)
Total expenses	10,547	7,026	3,521
Net loss and comprehensive loss	**(10,253)**	**(6,957)**	**(3,566)**
Basic and diluted loss per share	**(0.13)**	**(0.10)**	**(0.03)**

Q1 2022 Financial Results

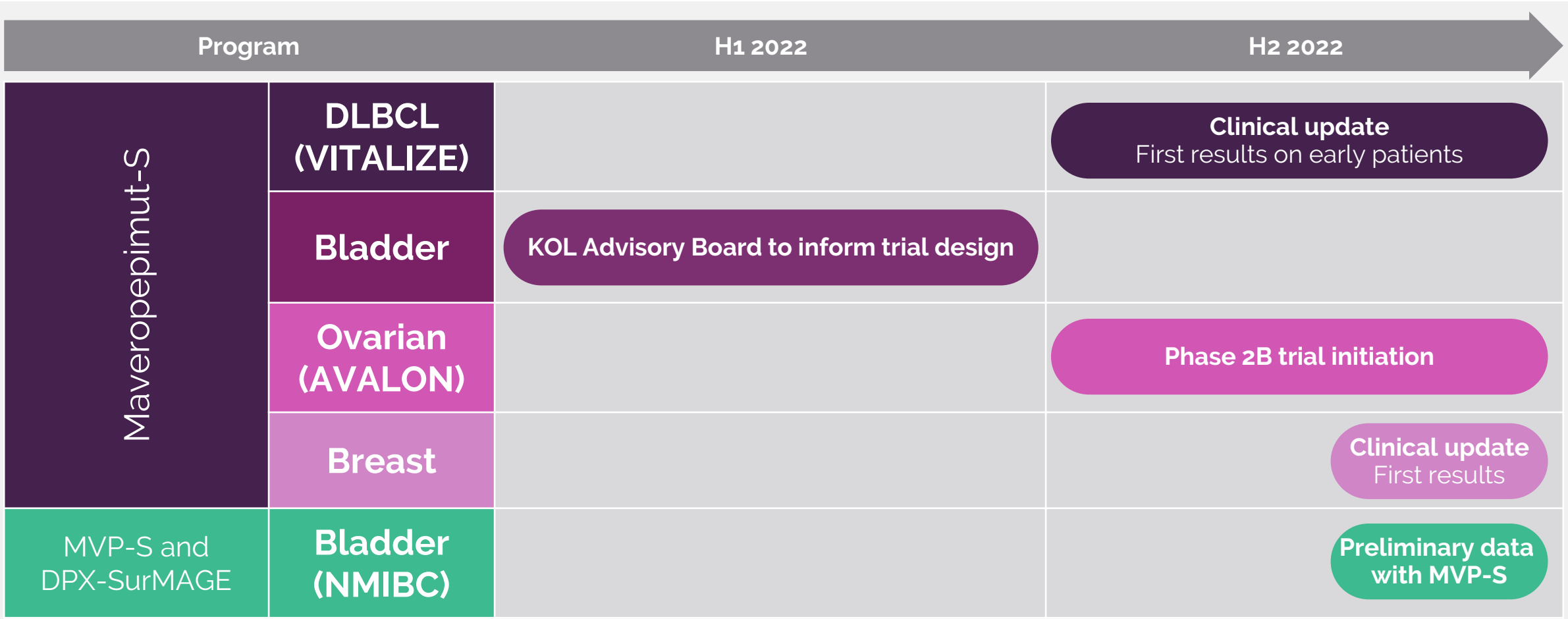
	(in Thousands of US dollars)	
	March 31, 2022	**Dec. 31, 2021**
Statements of financial position data:		
Cash and cash equivalents	28,689	38,616
Pro forma cash and cash equivalents**	38,689	38,616
Working capital	27,131	37,127
Total assets	40,833	50,121
Total liabilities	29,134	28,579
Total shareholder's equity	11,699	21,542

** Includes remaining $10 million from existing debt facility available upon meeting a pre-set clinical milestone which we are on track to meet in Q2 2022

Next Milestones & Conclusion

Andrew Hall, MSc
Chief Executive Officer

IMV's Upcoming Clinical Milestones



Questions & Answers