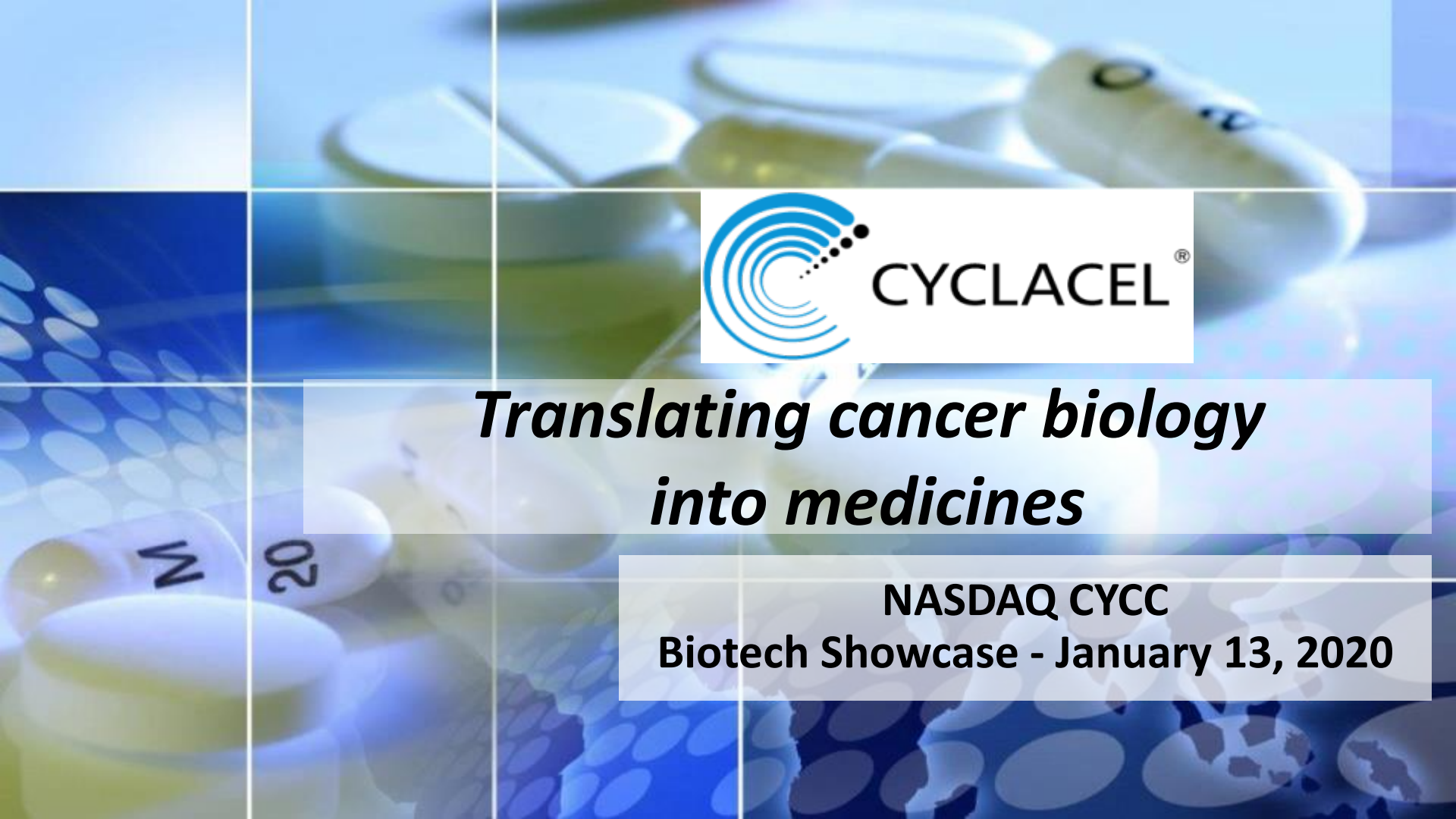


Translating cancer biology into medicines

NASDAQ CYCC

Biotech Showcase - January 13, 2020

Disclaimer

This presentation contains forward-looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995 about financial results and estimates, business strategy, clinical trial plans and research and development programs of Cyclacel Pharmaceuticals, Inc. By their nature, forward-looking statements and forecasts involve risks and uncertainties because they relate to events and depend on circumstances that will occur in the future. For a further list and description of the risks and uncertainties the Company faces, please refer to our most recent Annual Report on Form 10-K and other periodic and current filings that have been filed with the Securities and Exchange Commission and are available at www.sec.gov. The information in this presentation is current as of this date. Cyclacel does not take any responsibility to update such information.

Cyclacel Overview

Apply deep understanding of cell cycle biology to disrupt cancer

- **resistance**
- **DNA repair** or evasion

Targetable precision medicine strategy:

- **MCL1** in leukemias & solid tumors (Phase 1)
- **BRCA1/2** in breast, ovarian, pancreatic cancers (Phase 1/2)

Experienced management; estimated capital to end of Q1 2021

Clinical Stage Value Drivers

CYC065 CDK inhibitor (i.v. and oral)

Clinical proof of mechanism (MCL1 down-regulation & tumor shrinkage)

Combination with venetoclax in R/R leukemias (AML/MDS, CLL)

Sapacitabine nucleoside analogue (oral)

Unique DNA damage response mechanism for BRCA mutant patients with breast, ovarian and pancreatic cancers;

Combinations with venetoclax in R/R AML/MDS & olaparib in 2L BRCAm breast cancer

CYC140 PLK inhibitor (i.v. and oral)

Compelling preclinical data in liquid & solid cancers; first-in-human study in progress

Protecting our Investment in Cancer Meds

$107 bn in 2015 (+12% YoY). ~*$150 bn in 2020 Est.*

EVOLUTION OF RESISTANCE TO CANCER Rx

OR ADDICTION TO CANCER GENES

- Strategy: combine approved Rx that is no longer working with resistance-modifying Rx or
- Use modifying Rx to break addiction to oncogenes (MYC, cyclin E)

Suppressing Resistance Proteins

↑ *protein expression=survival/growth of cancer cells*

- **BCL2** > **venetoclax** approved in 1L & 2L CLL & 1L AML

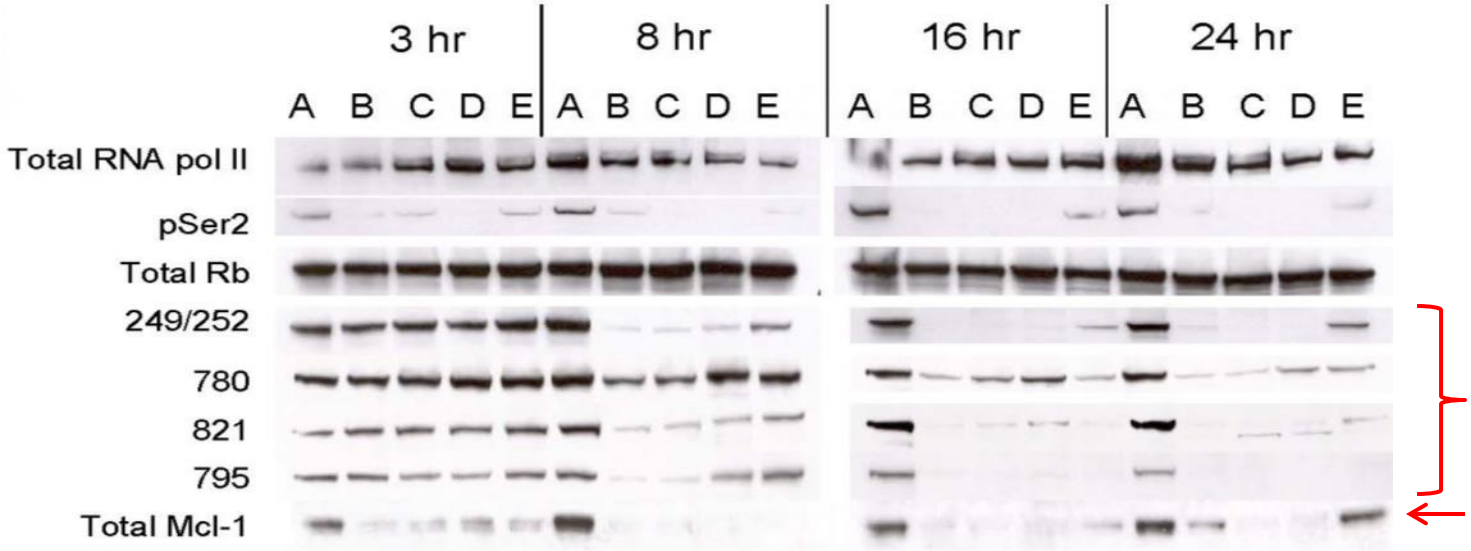
- **MCL1** > transcriptional CDKi, incl. **CYC065**

(one of ten most frequently overexpressed cancer genes)

Competitive race to develop drugs that suppress MCL1

CYC065 1st Rx to show durable MCL1 suppression in humans

Reduction of MCL1 by CDK Inhibition



A = DMSO
B = 2xIC_{50} seliciclib (26 μM)
C = 2xIC_{50} Cmpd2 (9 μM)
D = 2xIC_{50} Cmpd5 (0.6 μM)
E = 2x IC_{50} alvocidib (0.3 μM)

CYC065
(a.k.a. flavopiridol)

Colo205 cells treated for up to 24 hr. Source: Green, S.R. et al. AACR 2009 Abstract 3863.

What have we learned with CYC065?

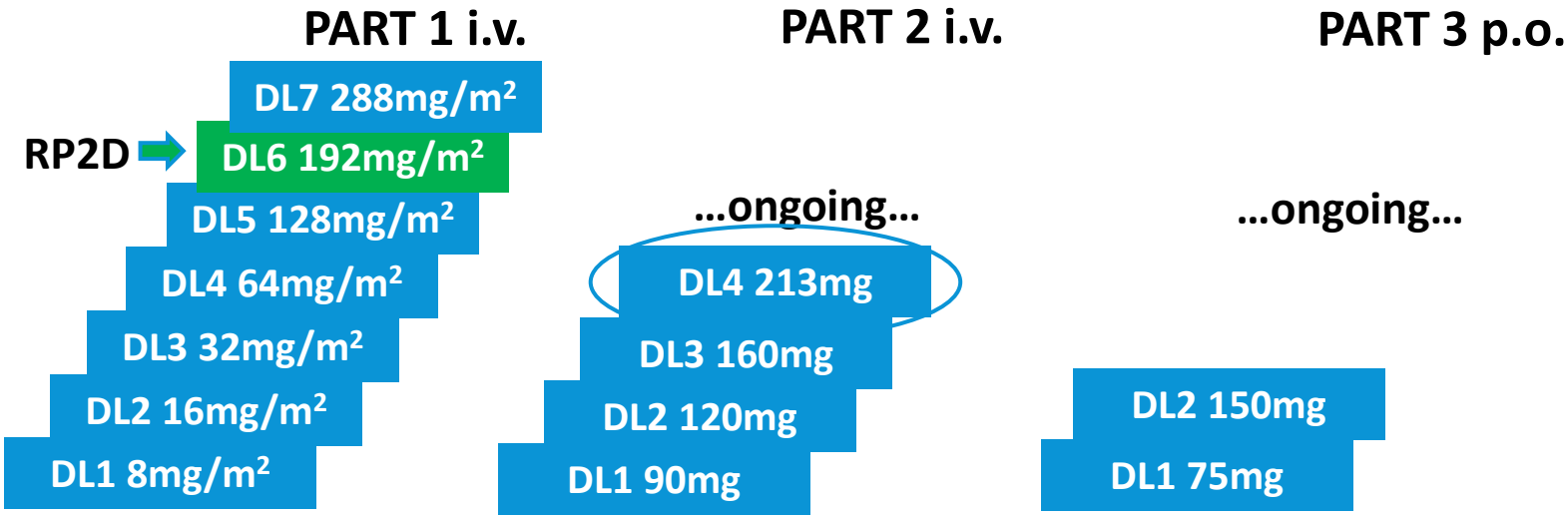
Single Agent:

- Durable MCL1 suppression at tolerable doses (i.v. once every 3 wks)
- MCL1 amplified endocrine cancer (i.v. 4x every 3 weeks): PR
- Cyclin E addicted ovarian cancer: SD with -29.7% tumor shrinkage

Combination with venetoclax:

- CLL: Reduced lymph node size and converted MRD +ve to MRD –ve
- AML/MDS: Reduced peripheral blast counts

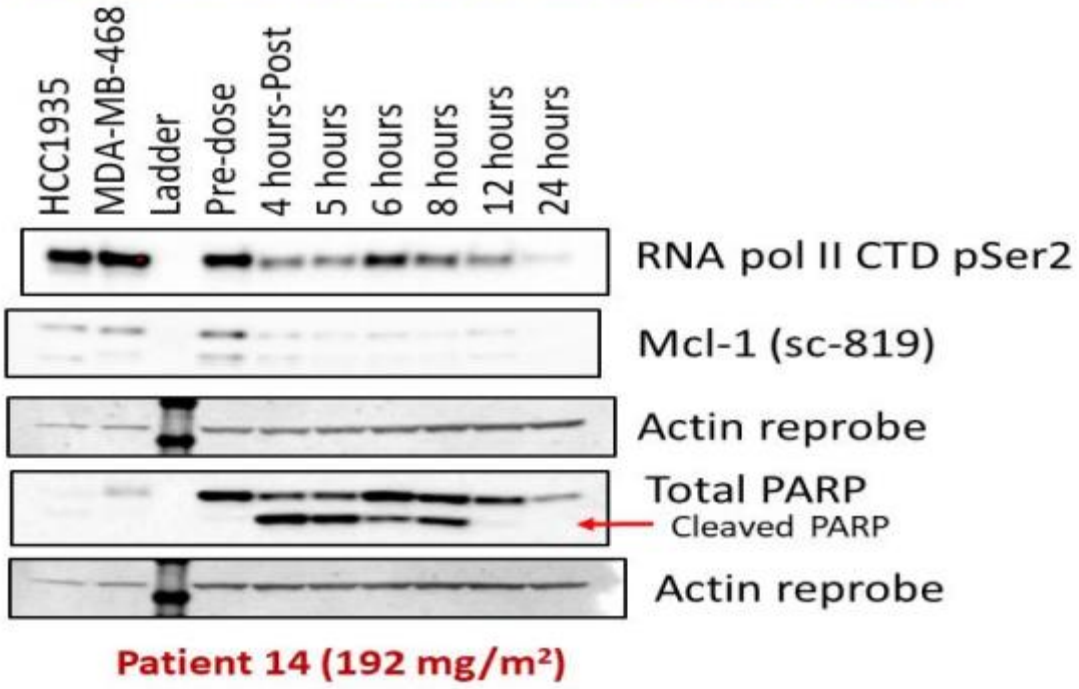
CYC065-01 Phase 1 Escalation Schema

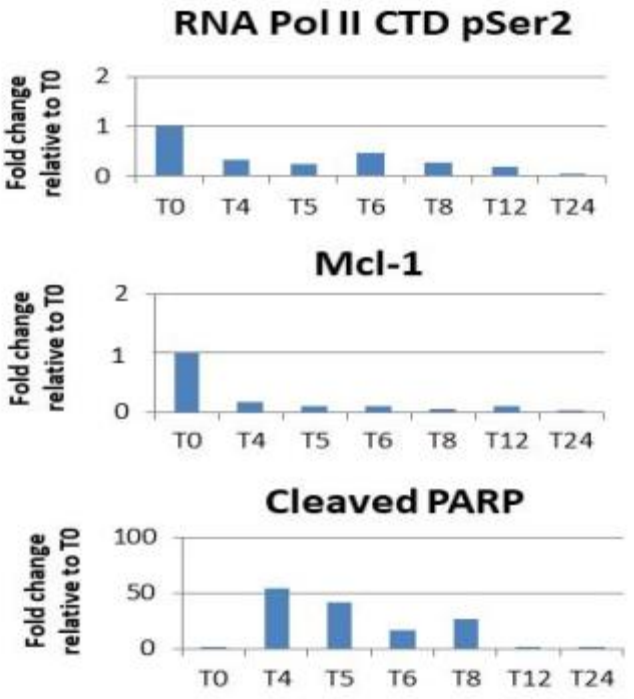


Source: Cyclacel data on file.

CYC065-01 Phase 1 part 1 Proof of Mechanism

Target inhibition detectable at 24 hours

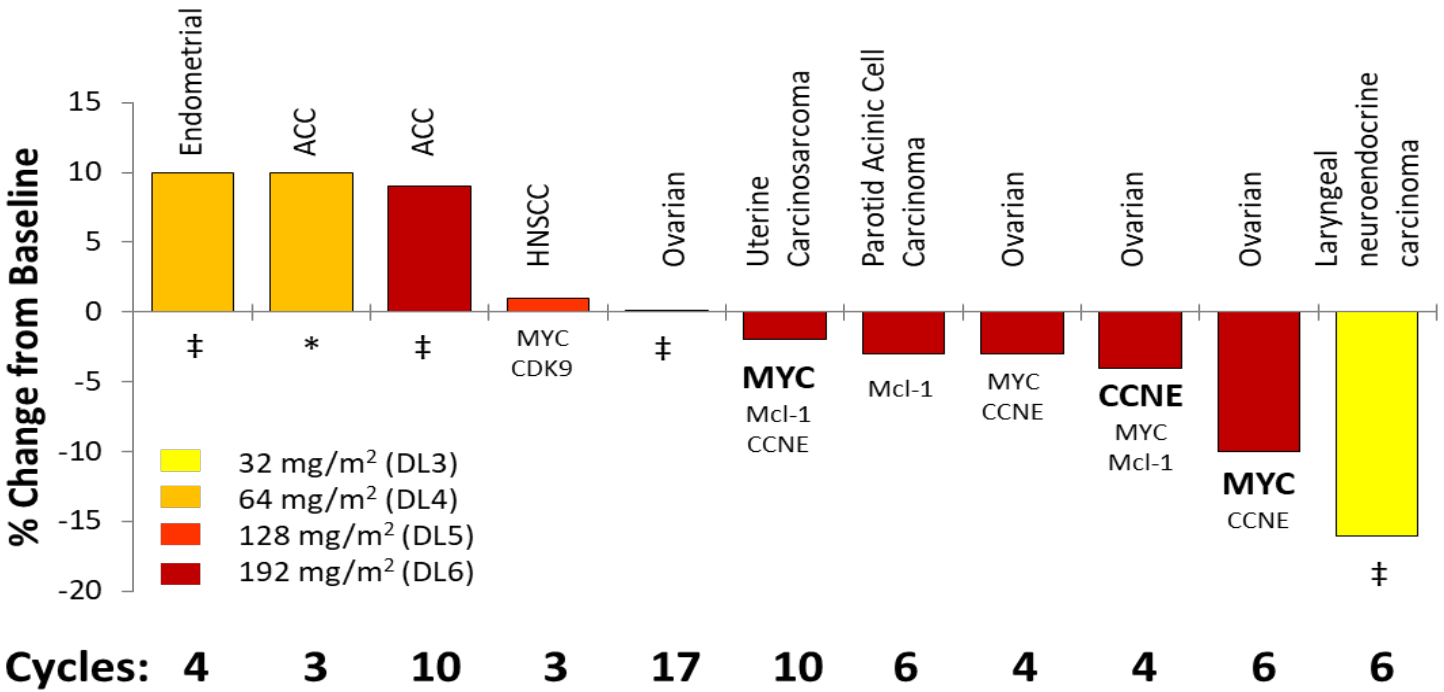




Source: Do, Khanh T., et al, AACR Annual Meeting 2018.

American Association for Cancer Research

CYC065-01 Phase 1 part 1 Activity



‡ no information; * complex deletions/gains. High copy gains shown in bold.

Source: Do, Khanh T., et al, AACR Annual Meeting 2018.

Summary:

- **20/26 patients evaluable for response per RECIST 1.1**
- **11/20 patients achieved stable disease (SD)**
- **6/11 patients achieved SD for 4+ cycles**

American Association for Cancer Research

CYC065-01 Phase 1 part 2 (ongoing)

PART 2 i.v.

…ongoing…

- Endometrial cancer patient with MCL1 amplification
- 16% tumor shrinkage after 2 cycles
- Confirmed PR
- 63% tumor shrinkage per investigator assessment

Source: Cyclacel data on file.

CYC065-01 Phase 1 part 2 (ongoing)

PART 2 i.v.

…ongoing…

- Ovarian cancer patient with cyclin E amplification
- SD with 19.0% tumor shrinkage after 2 cycles
- SD with 29.7% tumor shrinkage after 4 cycles

Source: Cyclacel data on file.

Rationale in R/R Leukemias

AML post venetoclax + HMA:

- MCL1 is major player; BCL2 less so: venetoclax modest singe agent activity
- “Double-Hit” strategy to suppress MCL1 + BCL2

CLL post BTKi regimens; nearly all survivors receive 2L:

- Venetoclax does not ↓ MCL1 which is a major correlate of resistance
- “Double-Hit” strategy to suppress BCL2 + MCL1

Preclinical evidence of synergy for venetoclax + CYC065*

** Source: Chen et al AACR 2018 Abs 5095; Cyclacel data on file.*

CYC065-03 Phase 1 AML/MDS

PART 1 i.v.

…ongoing…

- **DL4 150mg/m²**
- **DL2 113mg/m²**
- **DL2 85mg/m²**
- **DL1 64mg/m²**

- MCL1 plays prominent role in AML
- Aim to suppress apoptotic pathways
- Combination with venetoclax post ramp-up
- Blast reductions in peripheral blood

Source: Cyclacel data on file.

CYC065-02 Phase 1 CLL

PART 1 i.v.

…ongoing…

DL1 64mg/m²

- 2nd pat.; ibrutinib failure; lymphoadenopathy
- PR on venetoclax ramp-up
- Lymph node shrinkage after 5 cycles of 065+venetoclax
- Achieved MRD -ve

Source: Cyclacel data on file.

CDK & MCL1 Inhibitor Landscape

CDK4/6 senescence inducing isoforms

palbociclib (PFE), ribociclib (NVS), abemaciclib (LLY) Approved in combination with hormone therapies for ER +ve Her2 -ve advanced or metastatic BC

CDK2/9 transcriptional isoforms enabling apoptosis

CYC065 (CDK2/9, CYCC) Ph1 data

BAY1251152; *atuveciclib BAY1143572* **(CDK9, BAY)** Ph1 data

AZD4573 (CDK9, AZN) Ph1 ongoing

Other (pan CDK or selective):

flavopiridol/alvocidib (pan CDK, SUM) Ph2

dinaciclib (pan CDK, MRK) Ph3 terminated

voruciclib (CDK4/6/9, MEIP) Ph1 data

SY1365 (CDK7, SYRS) Ph1 data

MCL1 inhibitors: S64315 (Ph1b ven combo AML); AMG176 i.v./AMG397 oral (FiH); AZD5991 (FiH).

Source: Cyclacel data on file.

Development Pipeline

CYC- Rx Candidate	Phase 1	Phase 2	Phase 3	MoA / Rights
065 i.v.	065-01 parts 1/2 solid tumors			CDK2/9; W/W
065 oral	065-01 part 3 solid tumors			CDK2/9; W/W
065 i.v.	065-02 + venetoclax R/R CLL [M]			CDK2/9; W/W
065 i.v.	065-03 + venetoclax R/R AML/MDS [M]			CDK2/9; W/W
sapacitabine oral	682-11 sapacitabine + venetoclax R/R AML/MDS [M]			W/W exc. Japan
sapacitabine oral	IST sapacitabine + olaparib BRCA mutant breast CA			W/W exc. Japan
sapacitabine oral	682-12 SEAMLESS oral sapacitabine alternating with i.v. decitabine 1L AML >70 y.o. *(EU scientific advice – submissibility)*			W/W exc. Japan
140 i.v.	140-01 part 1 R/R AML/MDS [M]			PLK1; W/W

[M] *MD Anderson alliance programs. W/W = worldwide.*

Addressing Large Markets

CYCLACEL®

CLL 2L

- 21k US incidence; majority on BTKi regimens
- venetoclax (1L or 2L with ibrutinib +/or anti-CD20)

CYC065

AML elderly unfit for chemotherapy

- ~16k US incidence; venetoclax+HMA (aza or dec)
- venetoclax combination

CYC065 / sapa

BRCA +ve Breast Cancer

- ~11-15k US incidence; olaparib or other PARPi
- olaparib combination

sapa

Financial Position & Capitalization

September 30, 2019 cash & cash equivalents *pro forma*: $14.2m[1]

Operating cash burn (annual; excludes non-cash items)

- ✓ 2016: ~ $10.1m[2]
- ✓ 2017: ~ $ 7.5m[2]
- ✓ 2018: ~ $ 6.7m[2]
- ▪ 2019: ~ $10.0m[3]

Fully diluted shares: ~27.1 million[1,4]

No debt

1. *10 Q; includes $1.2m of UK R&D tax credit in OCT19.*
2. *10 K*
3. *Company estimate*
4. *Common stock outstanding 17.2 million*

MD Anderson-Cyclacel Alliance

Up to 170 patients with single agent or combinations of: CYC065, CYC140, sapacitabine

Risk Sharing: MD Anderson assumes patient costs; Cyclacel supplies drugs and limited support

Payments to MD Anderson upon First Commercial Sale in indications studied

Key Milestones

- Updated Ph 1 safety, PK and efficacy data for CYC065 utilizing a frequent dosing schedule in patients with advanced solid cancers;
- Initial safety, PK data from Ph 1 study of oral formulation of CYC065;
- Initial safety and PoC data from CYC065-venetoclax Ph 1 in R/R AML/MDS;
- Initial safety and PoC data from CYC065-venetoclax Ph 1 in R/R CLL;
- Initial data from sapacitabine-venetoclax Ph 1/2 study in R/R AML/MDS;
- Initial data from CYC140 Ph 1 First-in-Human study in R/R leukemias; and
- Data from Phase 1b/2 sapacitabine-olaparib IST in BRCA mutant metastatic breast cancer when reported by the investigators.

Investment Thesis

Clinical stage, state-of the-art oncology programs

Targeting molecularly-defined patient populations

Overcome cancer cell resistance & DNA repair

CDK inhibitors: validated drug class

Competitively positioned

Significant market opportunities

THANK YOU

Cyclacel Pharmaceuticals, Inc.

200 Connell Drive #1500
Berkeley Heights, NJ 07922
+1 (908) 517 7330

Contact: ir@cyclacel.com