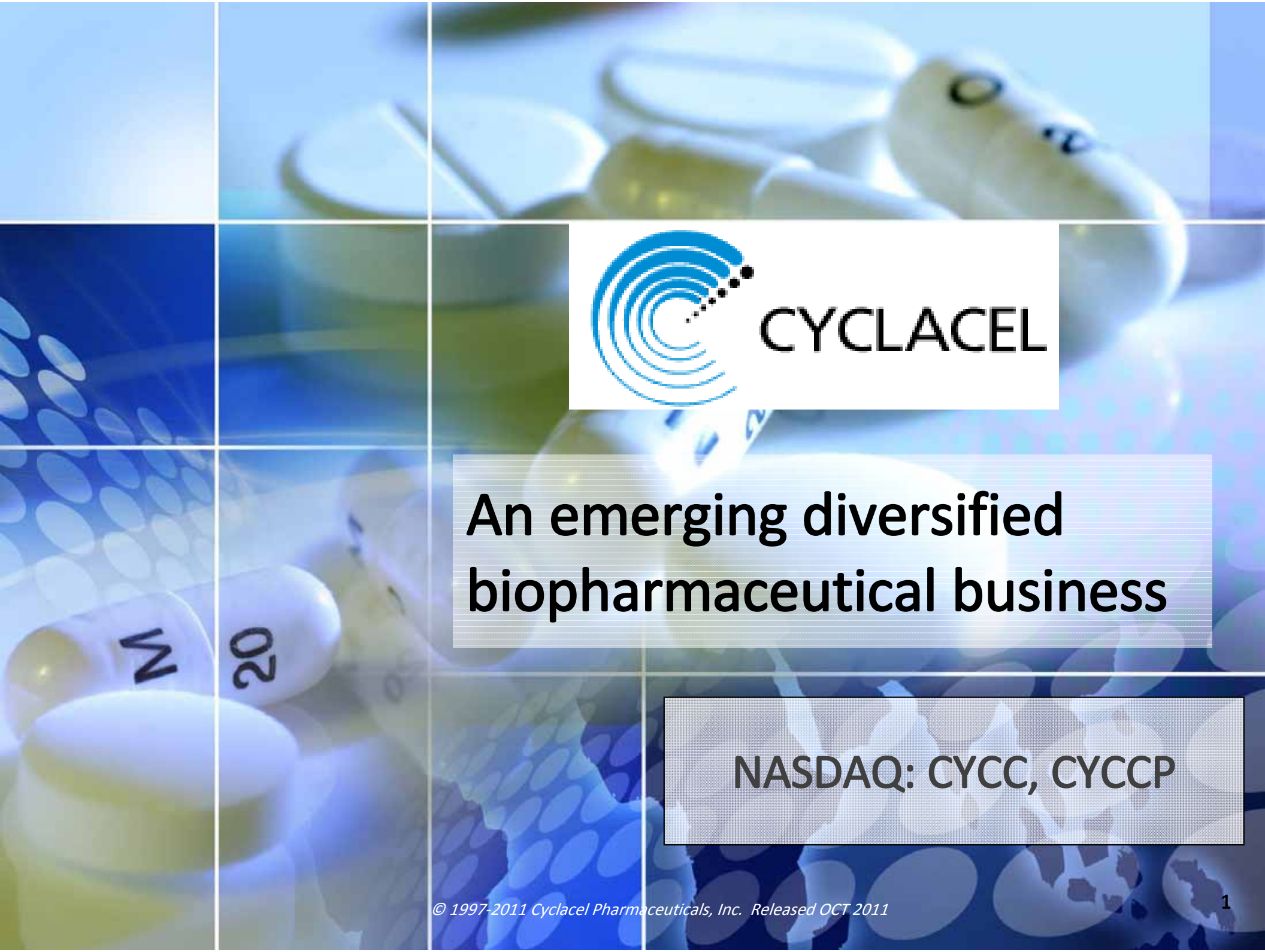

CYCLACEL

An emerging diversified biopharmaceutical business

NASDAQ: CYCC, CYCCP

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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.

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Overview

Novel, cell cycle-based drugs for cancer and other serious diseases

Cell cycle biology pioneer founders: *David Lane PhD; David Glover PhD*

Experienced leadership team in New Jersey & Scotland

Broad clinical and preclinical pipeline and commercial products

Sapacitabine Phase 3 in AML under SPA agreed with FDA;

Phase 2 in refractory MDS and NSCLC lung cancer

Seliciclib Phase 2b in NSCLC lung cancer

Pro Forma cash and equivalents: ~$ 30 million* as of June 30, 2011

… a frugal innovator at the cutting edge of cancer therapy …

* *Includes $9.3 million in net proceeds from the underwritten offering completed on July 7 2011 .*

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Clinical Pipeline

Description	Disease	Preclinical	Phase 1	Phase 2	Phase 3	Marketed
Sapacitabine oral capsules	AML					
	MDS					
	NSCLC					
	CLL *					
Seliciclib oral capsules	NSCLC					
	Nasopharyngeal					
Sapacitabine+ seliciclib combination	Solid tumors					

* *CLL = investigator-initiated study.*

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Sapacitabine

Oral nucleoside analogue prodrug

Dual mechanism of action:

- *Interferes with DNA synthesis and induces mainly G2-phase cell cycle arrest; as compared to S-phase arrest by cytarabine and gemcitabine*

AML "SEAMLESS" Ph. 3 in progress under Special Protocol Assessment (SPA) agreed with FDA

Phase 2 clinical trials:

- AML (completed)
- MDS (completed)
- NSCLC (in progress)

Chronic use drug with large market opportunity

- *Addresses an estimated $2 billion market (in current sales)*

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Nucleoside Analogue Landscape

Ara-C (cytarabine), Clolar®, Dacogen®, Vidaza®	*Gemzar® (gemcitabine)*
• Approved for AML, MDS, pediatric ALL • i.v. administration • ~$600 million in 2010E • No activity in solid tumors	• Approved for bladder, breast, NSCLC, ovarian, pancreas cancer • i.v. administration • ~$1.6 billion in 2010E • No activity in leukemia

Sapacitabine is unique among nucleoside analogues as it is orally active in <u>both</u> hematological malignancies and solid tumors

** Trademarks: Clolar®: Genzyme; Vidaza®: Celgene; Dacogen®: Eisai, Gemzar®: Lilly.*

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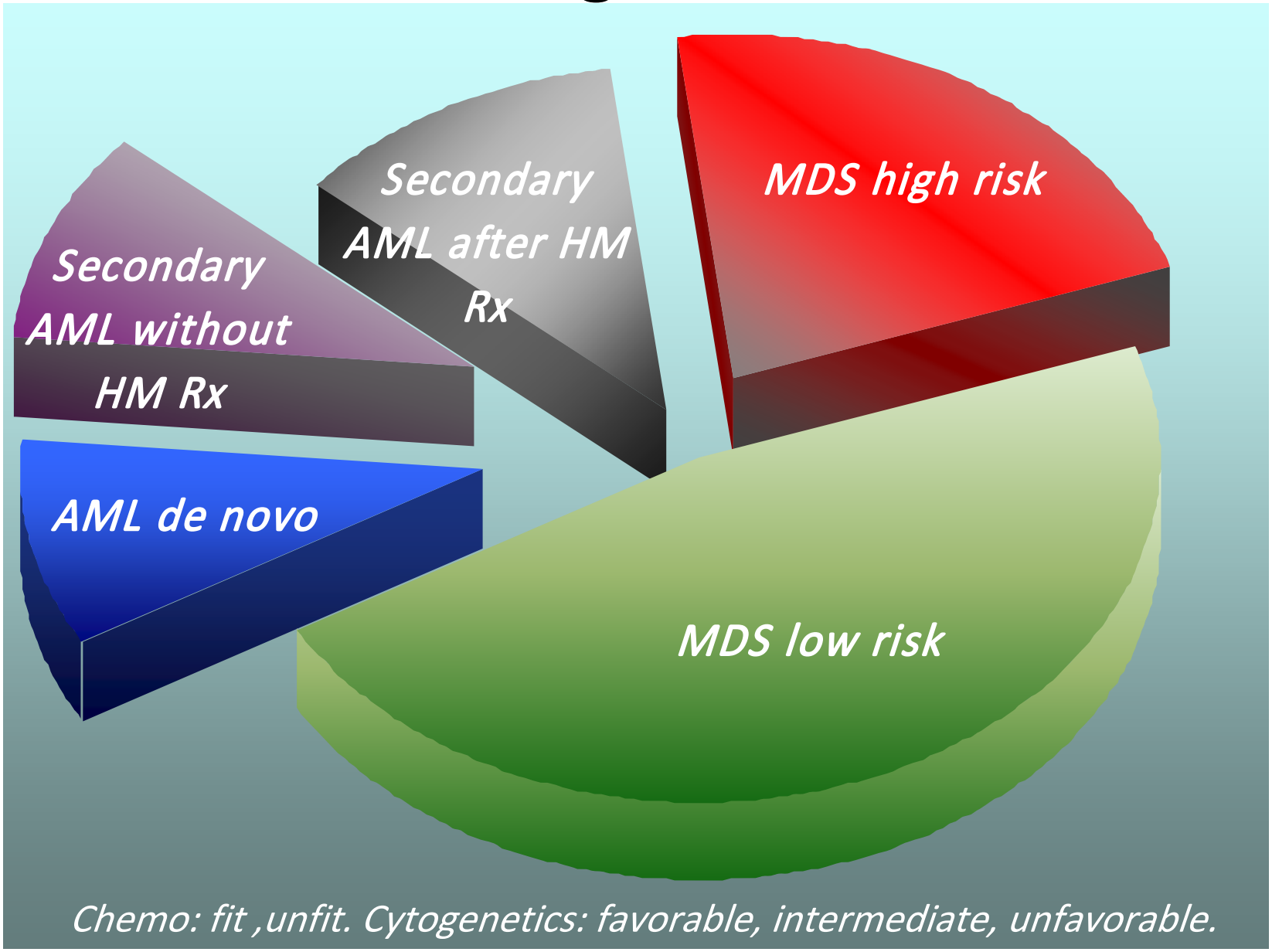
AML/MDS: Heterogeneous Diseases



* *Source: ACS SEER and Cyclacel-commissioned primary market research.*

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AML: Orphan Opportunity

*Est. 16,000 US prevalence; 12,500 incidence 2008**

50% ≥ 70 yrs.; 66% ≥ 60 yrs.; median age: ~ 67

Treatment	*Fit*	*Unfit*
Front line	7 + 3	Sapacitabine *Clinical trial*
Relapse/Refr.	*Clinical trial*	*Clinical trial*

…NCCN guidelines: 4-6 cycles for 1st line hypomethylating agents…

** Source: ACS SEER and Cyclacel primary market research. Sapacitabine Phase 2 data on file.*

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AML in Older & Elderly Patients

Life-threatening disease with poor survival *(~3 months*)*

50-year old i.v. ara-C based regimens unsatisfactory *(1-2 cycles)*

6 drugs failed to reach the market in last 2 years because of:

- Single arm trials; Phase 3 O.S. based on Phase 2 CR rate
- *e.g. decitabine iv: Failed primary O.S. endpoint in front-line AML; median O.S. 7.7 months in 65+ yr. old untreated AML*

Need oral, well tolerated, chronic treatments improving survival

…Our solution: sapacitabine oral capsules…

* *Source: Harousseau JL et al Blood 2009 01 19 8093 tipifarnib vs BSC.*

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AML ≥65 or ≥70 yrs. Survival Outcomes

	Sapacitabine + decitabine & ≥70 years old (n=21)	Sapacitabine # ≥70 years old (n=60)	Decitabine ^ ≥65 years old (n=242)	Intensive chemo @ ≥70 years old (n=446)	BSC ! ≥70 years old (n=229)
Median O.S. months	not reached	not reached	5.0-7.7 (p=0.11)	4.6	3.6
60-day deaths	14%	27%	20-25%	36%	~30%
30-day deaths	5%	13%	7-10%	26%	17%

** Source: @Kantarjian H et al, Blood 2010; &Ravandi F et al 2011 ASCO, ^Thomas X et al ASCO 2011 & Cashen et al JCO 2010, !Harousseau JL et al Blood 2009; & Cyclacel estimates. #Incl. 1st relapse & prior hypomethylating agents. BSC=best supportive care.*

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"SEAMLESS" Phase 3 Design

(Untreated AML front line treatment aged ≥ 70 years)

- ✓ Arm A lead-in stage
- ✓ DSMB OK to randomized stage (OCT '11)

A. **Alt. decitabine-sapacitabine** n=150

B. **Sapacitabine** n=150

C. **Decitabine** n=150

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"SEAMLESS" Phase 3 Plan

Primary endpoint: Overall Survival

- A versus C or

- B versus C

-*First interim DSMB analysis for safety (OCT'11)*

-Futility analysis at 50% of events for each pairwise comparison

-Design developed in consultation with FDA under a SPA

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Phase 2 AML Data (n=60)

Aged ≥ 70 years 80% untreated; 20% first relapse

- Randomized across 3 dosing schedules
- 55% AML de novo; 45% AML preceded by AHD, such as MDS

Primary endpoint ASH 2009: 1-year survival = 30% *

Secondary endpoints: Overall Response Rate = 35% *

Median Overall Survival = 212 days (range 13-654) *

1-year survivors: averaged 12 cycles, of which 93% had unfavorable or intermediate cytogenetics

30-day induction mortality: 10% *

** On Arm C. Source: G. Garcia-Manero, et al, Abstract 1061, ASH 2009 and Cyclacel data on file. As of December 1, 2009.*

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Phase 2 AML One-Year Survival

Arm	Disease	Age	HCTCI	Cytogenetics by SWOG	Best Response	Total cycles
A	De novo	82	3	Unfavorable	Major HI in platelets; marrow blast 38% ↓ to 5%	15
	Pre by MDS*	84	3	Intermediate	Major HI in platelets; marrow blast 22% ↓ to 13%	>22
	De novo	80	1	Intermediate	Major HI in neutrophils; resolution of leukemic cutis	>17
	Pre by MDS	81	2	NA	Major HI in platelets; marrow blast 77% ↓ to 5%	>16
	De novo	79	0	Intermediate	Major HI in neutrophils; marrow blast 90% ↓ to 23%	>12
	Pre by MDS	82	4	Intermediate	No response	2
	Pre by MDS*	74	3	Intermediate	No response	2
B	De novo (1st relapse)	75	0	Intermediate	PR	7
	Pre by MDS*	73	1	Intermediate	No response but marrow blast 25% ↓ to 16%	7
C	De novo	72	4	Intermediate	CR	23
	De novo	72	1	Unfavorable	CR	>16
	De novo	82	0	Unfavorable	CR	>15
	De novo (1st relapse)	76	2	Intermediate	CR	>6
	De novo	74	0	Unfavorable	Major HI in platelets; marrow blast 40% ↓ to 36%	14
	Pre by myelofibrosis	78	3	Intermediate	No response but marrow blast 72% ↓ to 25%	8

**Received hypomethylating Rx for prior MDS. * Source: G. Garcia-Manero, et al, Abst. 1061, ASH 2009; Cyclacel data on file. All AML / MDS patients as of December 1, 2009.*

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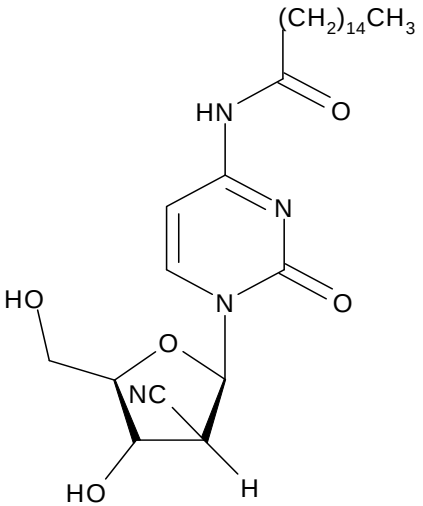
Changing the Paradigm

"Sapacitabine is one of the most exciting drugs in development for AML since cytarabine, the current standard of care." †

Hagop Kantarjian, M.D.
Chairman & Professor, Leukemia Department
The University of Texas M D Anderson Cancer Center



† *Source: CYCC Analyst Note 11/07, Lazard Capital Markets.*

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MDS: Unmet Medical Need

*Est. 300K new cases in US & EU in 2008**

45,000 US Medicare (aged ≥65 years) claims for MDS in 2003 *

Treatment	*Low Risk*	*High Risk*
1st line	***lenalidomide*** †	***azacitidine*** #, ***decitabine*** &
2nd line	-	Sapacitabine

…NCCN guidelines: 4-6 cycles for 1st line hypomethylating agents…‡

** Source: Cyclacel est. & Golberg, S, et al, JCO, 2010. † Revlimid®, Celgene. # Vidaza®, Celgene. & Dacogen®, Eisai. Dacogen and Vidaza are hypomethylating agents. ‡ NCCN Guidelines Myelodysplastic Syndromes v.2.2011 p. 19.*

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Sapacitabine Phase 2 MDS (n=61)

Aged ≥ 60 years previously treated with

- azacitidine (43%); decitabine (34%); double refractory (23%); triple refractory including lenalidomide (16%)
- 77% ≥70 years; 84% intermediate-2 or high risk by IPSS
- Randomized across same 3 dosing schedules as in AML

Primary endpoint ASH 2010: 1-year survival = 29 - 35%

Secondary endpoint: ORR = 24 - 35%

20% treated for 4 - 6 cycles & 15% for ≥ 7 cycles

30-day induction mortality: 6.6%

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Sapacitabine in NSCLC

Gemzar: NSCLC accounts for large part of $1.6 bn sales

Sapacitabine causes tumor shrinkage in NSCLC with long duration of effect

Unlike Gemzar, sapacitabine is given orally without need for transfusions

Phase 2 interim data readout in 2011

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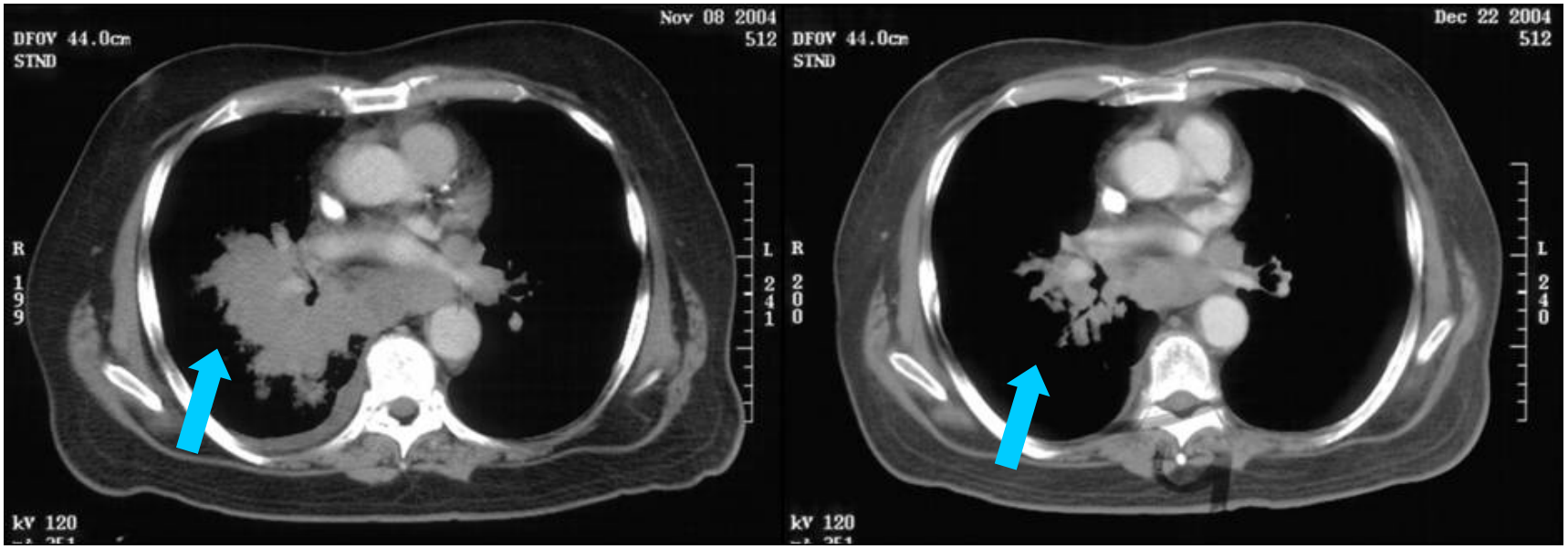
Phase 1 NSCLC Patient



Baseline
Nov. 8, 2004

After 2 cycles of treatment
Dec. 22, 2004

Stable Disease with Tumor Shrinkage

Patient was on 50x 7 d/m2 bid x 14 days x 3 wks, had stable disease at the end of cycle 2, progressed after dose reduction for febrile neutropenia.

Source: Tolcher, A.W. et al, ASCO Proceedings 2005, Abstract 2026.

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NSCLC: Unmet Medical Need

*Est. 500K new cases in US, EU, JP in 2010**

Treatment	*Median Survival*	*Median TTP*
1st line	8-12 mos.	4 mos. @
Alimta, Avastin, Platinums, Taxol, Gemzar/Navelbine		
2nd line	7-8	2-3#
Alimta, Tarceva, Taxotere		Sapacitabine
3rd line	4	1-2~
Tarceva, (Iressa&)		Seliciclib

** Source: Lung Cancer Alliance, Espicom, 07/10. # Shepherd F et al 2004. ~TJ Cancer 2004. & Withdrawn from market unless on previous therapy. TTP = time to progression.*

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Seliciclib

Novel, first-in-class, oral multikinase cyclin dependent kinase (CDK)/cyclin inhibitor targeting CDK2/E, CDK2/A, CDK7, CDK9:

- Lung cancer cells are addicted to CDKs/cyclins
- Modulating cell sensitivity & reversing resistance > apoptosis

Improved O.S. by ~ 6 months in RDT Phase 2 trial

Evaluating activity profile in KRAS mutant NSCLC patients

***CYC065**: second generation CDK in IND-directed development*

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Phase 2b "APPRAISE" Data (n=187)

3rd, 4th or 5th line NSCLC in 21 US hospitals

Randomized discontinuation, double-blinded, placebo-controlled vs. Best Supportive Care

53 /187 (28%) randomized; 85% had prior EGFR Rx

14 / 53 (26%) seliciclib cross-over after PD on placebo

Primary endpoint: PFS = 48 vs. 53 days

Secondary endpoint: Overall Survival = 388 vs. 218 days

Collect & analyze biopsy data; study RAS mutations

Source: Cyclacel data on file. PFS = Progression Free Survival.

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Seliciclib or CYC065 Target Resistant NSCLC & Breast Cancer

Mutations e.g. KRAS make cancer cells resistant to approved drugs

- e.g. Erbitux®, Tarceva®, Femara®, Herceptin®

Seliciclib & CYC065 kill KRAS & NRAS resistant lung cancer cells*

Seliciclib kills Femara-resistant breast cancer cells*

CYC065 kills Herceptin-resistant breast cancer cells*

Source: Galimberti, F., et. al. Clinical Cancer Research 2010 16:1:109–20. Akli S., et. al., Clinical Cancer Research, 2010 16:4:1179–90.

Immunofluorescent image of a lung cancer cell after targeting of CDK2/cyclin E with small interfering RNA resulting in a multipolar spindle. Microtubules (red); DNA (blue). The lung cancer cell undergoes anaphase catastrophe.

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Experienced Leadership

Spiro Rombotis, President and CEO

- Liposome, Bristol-Myers Squibb, Centocor, Ciba-Geigy

Paul McBarron, Executive VP, Finance and COO

- Shire Pharmaceuticals, Sterling Drug, SmithKline Beecham

Professor David Glover, PhD FRS FRSE, Chief Scientist

- University of Cambridge, Imperial College London

Judy Chiao, M.D., VP Clinical Dev. & Regulatory Affairs

- Merck, Aton Pharma, FDA

Bob Sosnowski, Vice President, Sales and Marketing

- Genentech, Centocor, Liposome, Amgen

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Key Milestones

Sapacitabine

- ✓ SEAMLESS Phase 3 trial initiated in AML under SPA
- ✓ SEAMLESS Arm A pilot Phase 1/2 data
- ✓ SEAMLESS DSMB 1st interim decision
- – Phase 2 interim data in NSCLC
- – Updated survival data from pilot Phase 1/2 trial

Seliciclib

- – APPRAISE Phase 2b biopsy mutational analysis data

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Cyclacel Pharmaceuticals

Cell cycle pioneers

Improving patient lives

With orally-available

Innovative medicines

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