## CORPORATE OVERVIEW

AUGUST 2022



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## OUR VISION

#### WE ASPIRE TO CONQUER CANCER

by addressing the unmet medical needs of our patients with paradigm-shifting therapeutics

## Building a Next-Generation Oncology Pipeline



STRONG MANAGEMENT TEAM WITH A PROVEN TRACK RECORD OF CLINICAL AND REGULATORY SUCCESS



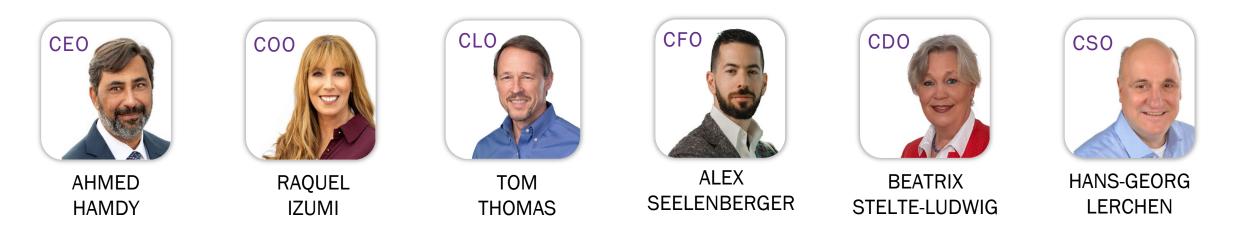
DIVERSE PIPELINE WITH MULTIPLE BEST IN CLASS OPPORTUNITIES



INNOVATIVE, NEXT-GENERATION BIOCONJUGATION PLATFORM



## Renowned Management Team 120 YEARS OF DRUG DEVELOPMENT EXPERIENCE



PROVEN TRACK RECORD OF SUCCESSFUL DRUG DEVELOPMENT, APPROVALS, AND VALUE CREATION





## Extensive Company Expertise

51 DRUG APPROVALS/LAUNCHES

**37** ONCOLOGY DRUG APPROVALS/LAUNCHES

**105** PRIOR BIOTECH/PHARMA COMPANIES

>40 DECADES OF BIOTECH/PHARMA EXPERIENCE



## Blockbuster Exits



#### \$7B acquisition by AstraZeneca (AZ) in 2016 for acalabrutinib in phase 3

#### MANAGEMENT TEAM'S CONTRIBUTION

Founded Acerta with acalabrutinib at preclinical stage Accelerated approval in 4 years

- 2013 Acerta founded
- 2014 --- 1st patient dosed
- 2016 AZ acquisition
- 2017 Accelerated approval in MCL
- 2019 Approved in CLL



\$975M partnership with Janssen in 2011 (\$150 up front, \$825M in milestones)

\$21B acquisition of Pharmacyclics by AbbVie in 2015

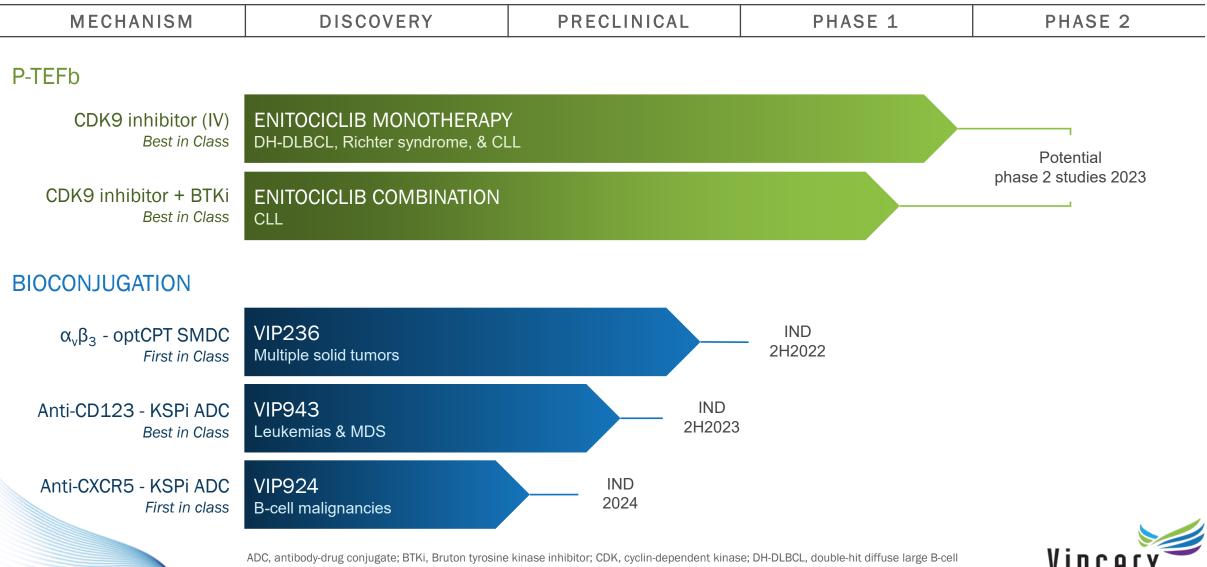
#### MANAGEMENT TEAM'S CONTRIBUTION

Developed ibrutinib from preclinical through phase 2 in <3 years

All 3 phase 2 studies garnered break through therapy designation and accelerated approvals







ADC, antibody-drug conjugate; BTKi, Bruton tyrosine kinase inhibitor; CDK, cyclin-dependent kinase; DH-DLBCL, double-hit diffuse large B-cel lymphoma; IND, indication; IV, intravenous; KSPi, kinesin spindle protein inhibitor; MDS, myelodysplastic syndrome; optCPT, optimized camptothecin; P-TEFb, positive transcription elongation factor B; SMDC, small molecule drug conjugate.

PHARMA

## **Developing Solutions to the ADC Problems**

#### CHALLENGES

Side effects caused by cell-permeable DNAdamaging payloads or microtubule inhibitors

Premature release of cytotoxic payloads

ADC aggregation and unspecific cellular uptake driven by hydrophobic payloads

#### **VINCERX DESIGN SOLUTIONS**

Internalizing highly selective antibodies

Linker specifically cleaved intracellularly by legumain, a tumor-associated protease

KSPi, a novel payload class in ADCs that is hydrophilic

Impermeable payload — CellTrapper<sup>™</sup> attached to KSPi to reduce membrane permeability

KSPi payload with CellTrapper is hydrophilic

#### BENEFITS

Direct tumor targeting

Unique cleavage sequence (no unspecific cleavage) Second level of tumor targeting via specific ADC activation

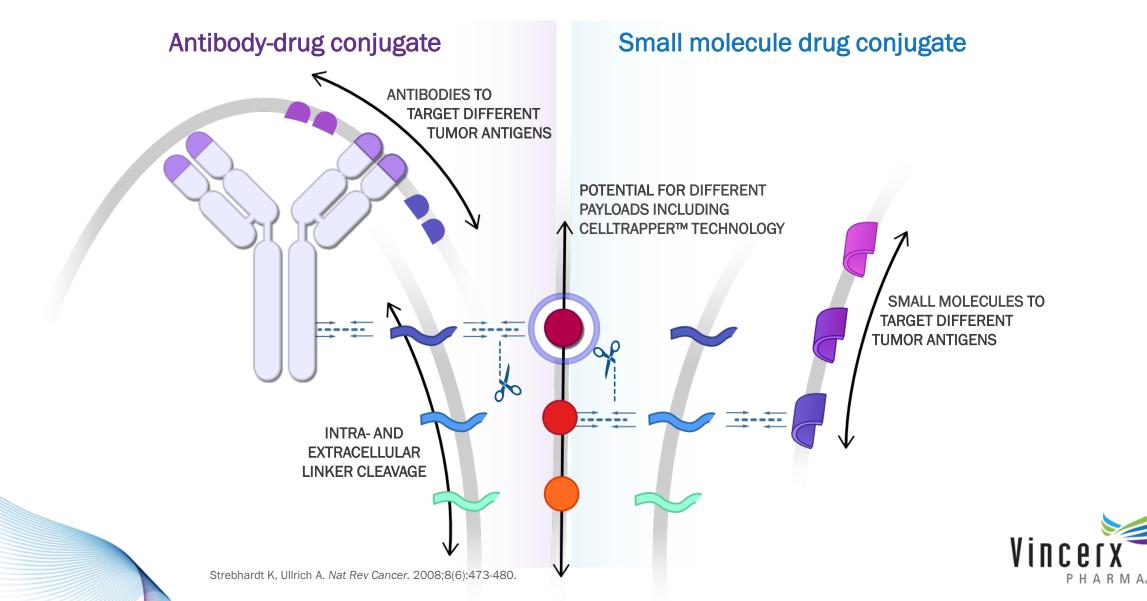
High potency and novel MoA Efficacy: Allows for high DAR without affecting PK Safety: No side effects associated with aggregation

Efficacy: High and long-lasting tumor accumulation Safety: No unspecific uptake of released payload into healthy cells Low/no toxicity in nondividing cells, no neurotoxicity Flexibility, compatible with different linker designs



DAR, drug antibody ratio; MoA, mechanism of action; PK, pharmacokinetics.

### Delivering on the Promise of the "Magic Bullet" PROPRIETARY TUNABLE AND MODULAR PLATFORM: DESIGNING BESPOKE THERAPIES





P-TEFb PROGRAM



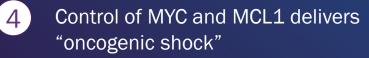
## Positive Transcription Elongation Factor B (P-TEFb)

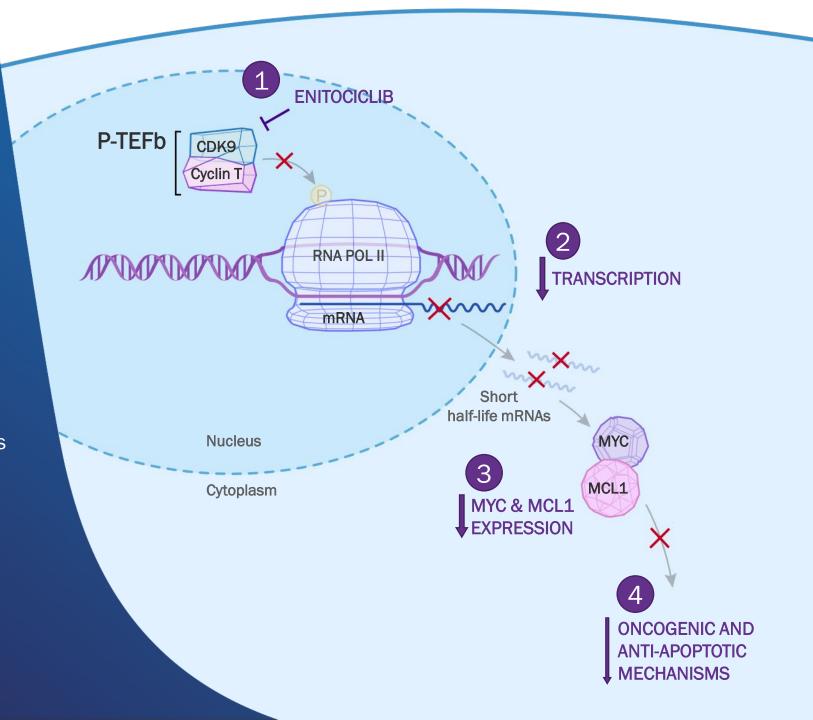
#### A NOVEL TARGET FOR ONCOLOGY

- 1 Enitociclib inhibits CDK9 preventing activation of RNA polymerase II
  - Inactivation of RNA polymerase II causes rapid depletion of short-lived mRNAs
- 3

2

Expression of known oncogenes, MYC and MCL1, is reduced





## Enitociclib Demonstrates Highest CDK9 Selectivity

Torgot	Enitociclib	Fadraciclib	Flavopiridol	KB-0742	AZD4573
Target	Kd [nM]	Kd [nM]	Kd [nM]	Kd [nM]	Kd [nM]
CDK9	0.57	63	2.9	19	0.73
CDK1	>1000-fold	>10-fold	>50-fold	>10-fold	<10-fold
CDK2	>1000-fold	<10-fold	>250-fold	>10-fold	<10-fold
CDK3	>1000-fold	<10-fold	>100-fold	>10-fold	<10-fold
CDK4-cyclinD1	>250-fold	<10-fold	<10-fold	>10-fold	<10-fold
CDK4-cyclinD3	>100-fold	<10-fold	<10-fold	>10-fold	>10-fold
CDK5	>1000-fold	<10-fold	>10-fold	>10-fold	>50-fold
CDK6	>1000-fold	>10-fold	>250-fold	>10-fold	<10-fold
CDK7	>50-fold	<10-fold	>10-fold	<10-fold	<10-fold
GSK3A	>10-fold	>10-fold	>100-fold	>10-fold	<10-fold
IRAK1	>100-fold	>10-fold	>250-fold	>10-fold	>10-fold

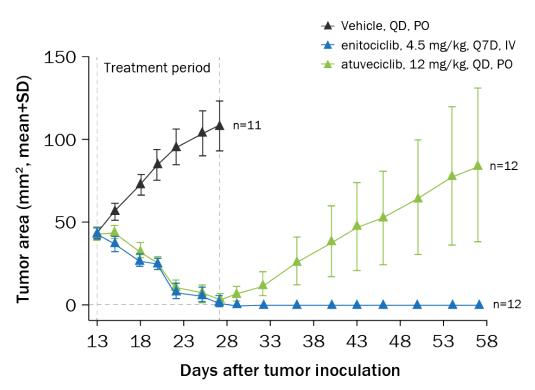
#### Enitociclib Is the Most Selective CDK9 Inhibitor

Fold difference relative to Kd values determined for CDK9.

#### Enitociclib Retains Potency at Low and High ATP Concentrations

Compound	Enitociclib	Fadraciclib	Flavopiridol	KB-0742	AZD4573
IC50 (nM) at 10 µM ATP	4.52	28.20	5.96	29.40	3.20
IC50 (nM) at 2 mM ATP	11.80	1.670	32.80	1.130	4.22

#### Once-Weekly IV Dosing With Enitociclib (VIP152) Is More Effective Than Daily Oral Dosing With Atuveciclib

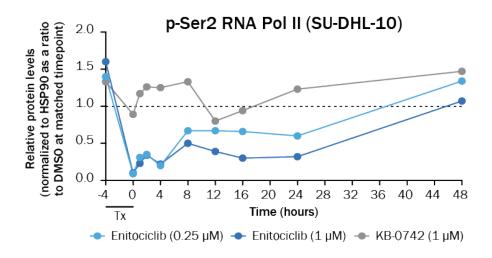


#### MV4-11 AML xenografts in rats

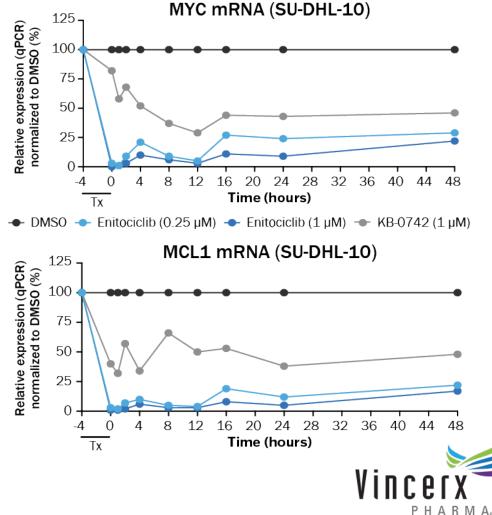
AML, acute myeloid leukemia; ATP, adenosine triphosphate; IC, inhibitory concentration; IV, intravenous; PO, by mouth; Q7D, every 7 days; QD, once daily; SD, standard deviation. Frigault, et al. EHA 2022. Diamond, et al. CCR 2022.

# Enitociclib MoA Drives Sustained Inhibition of MYC and MCL1 Transcription

Enitociclib Provides Most Robust and Durable Reduction of p-RNA Polymerase II



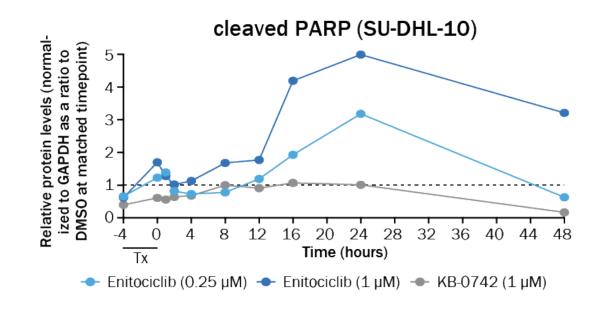
4-hour in vitro pretreatment with enitociclib compared with KB-0742 in the MYC-mutant and overexpressed SU-DHL-10 cell line Enitociclib Depletes and Maintains Deeper Inhibition of MYC and MCL1 mRNA



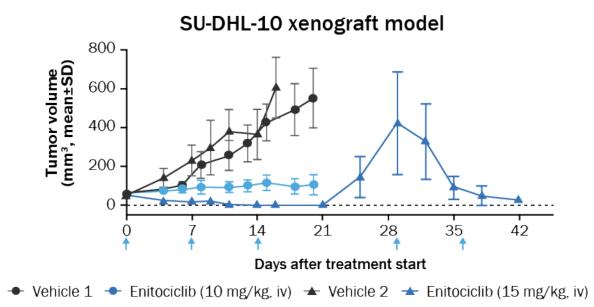
DMSO, dimethyl sulfoxide; qPCR, quantitative polymerase chain reaction; Tx, treatment. Frigault, et al. ASH 2021.

## Enitociclib Leads to Apoptosis Induction and In Vivo Tumor Regression

Enitociclib Leads to 3- to 5-fold Induction of Apoptosis In Vitro



#### Dose-Dependent In Vivo Tumor Growth Inhibition

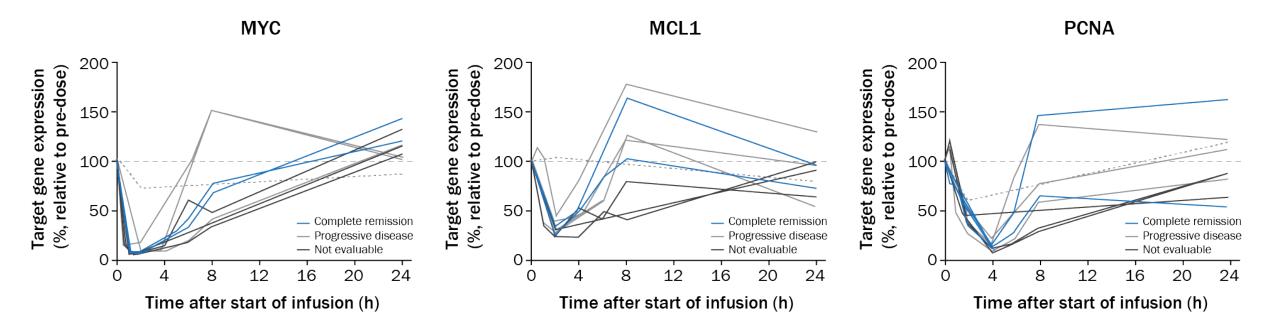




GAPDH, glyceraldehyde 3-phosphate dehydrogenase; PARP, poly(ADP-ribose) polymerase. Frigault, et al. ASH 2021.

## Enitociclib MoA Confirmed in the Clinic

Enitociclib Robust Down Modulation of MYC, MCL1, and PCNA mRNAs in Whole Blood of Patients With DLBCL and CLL





DLBCL, diffuse large B-cell lymphoma; PCNA, proliferating cell nuclear antigen. Frigault, et al. EHA 2022.

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## **Potential Indications**

#### MYC AND MCL1 OVEREXPRESSION IS A HALLMARK OF MULTIPLE AGGRESSIVE, RESISTANT TUMORS REPRESENTING A WIDE-RANGING UNMET MEDICAL NEED

MYC-Dependent B-Cell Lymphoma DH-DLBCL, Transformed FL, Richter Syndrome, MCL

MCL1-Dependent Leukemias CLL, AML, MDS

MCL1-Dependent Multiple Myeloma

MCL1- or MYC-Dependent Solid Tumors Ovarian, TNBC, CRPC including NEPC

Lossos IS, et al. *PNAS*. 2002;99(13):8886-8891; Wang N, et al. *Blood*. 2020;135(1):17-27; Jain, et al. ASH. 2021; Yue XY, et al. *Cancer Cell Int*. 2020;524(20); Wallington-Beddoe CT, Mynott J. *Hematol Oncol*. 2021;14(1):151; Lourenco C, et al. *Nat Rev Cancer*. 2021;21(9):579-591.



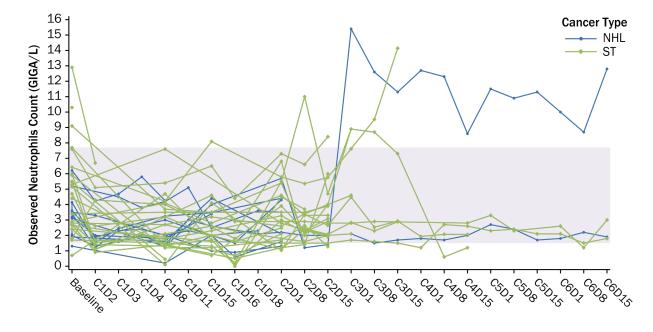
CRPC, castration-resistant prostate cancer; FL, follicular lymphoma; NEPC, neuroendocrine prostate cancer; TNBC, triple-negative breast cancer.

# Enitociclib Has a Favorable Safety Profile in Patients With Solid Tumors and Lymphoma

#### Treatment-Emergent Adverse Events (n=56)

Adverse Events (>15%)	Any Gr	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Nausea	37 (66.1)	22 (39.3)	15 (26.8)	0	0	0
Vomiting	30 (53.6)	20 (35.7)	10 (17.9)	0	0	0
Fatigue	19 (33.9)	8 (14.3)	10 (17.9)	1 (1.8)	0	0
Anemia	17 (30.4)	6 (10.7)	7 (12.5)	4 (7.1)	0	0
Diarrhea	17 (30.4)	13 (23.2)	4 (7.1)	0	0	0
Neutropenia	12 (21.4)	0	4 (7.1)	5 (8.9)	3 (5.4)	0
Constipation	9 (16.1)	7 (12.5)	2 (3.6)	0	0	0

Neutropenia Is an On-Target (CDK9) Toxicity and Is Monitorable and Manageable With Supportive Care (n=37 patients at <u>30 mg dose</u>)



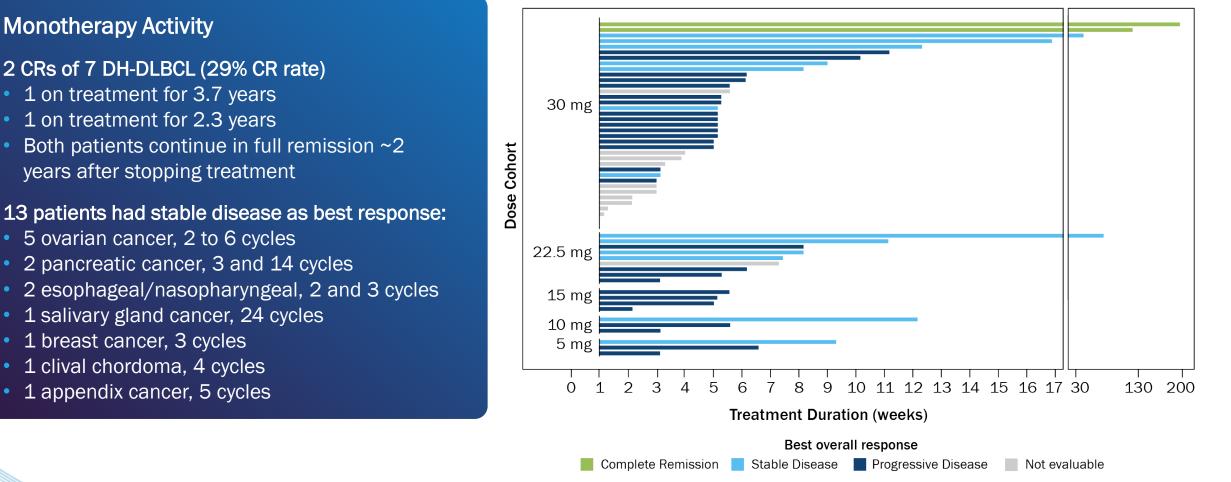
#### Cardiac safety analysis (n=57)

In an analysis of triplicate electrocardiogram and matched PK data from 57 patients with solid or hematologic cancer, enitociclib did not prolong (<10 ms) the QTc interval (QTc/F) after a single or multiple 5 to 30 mg doses once weekly, indicating a favorable cardiac safety profile



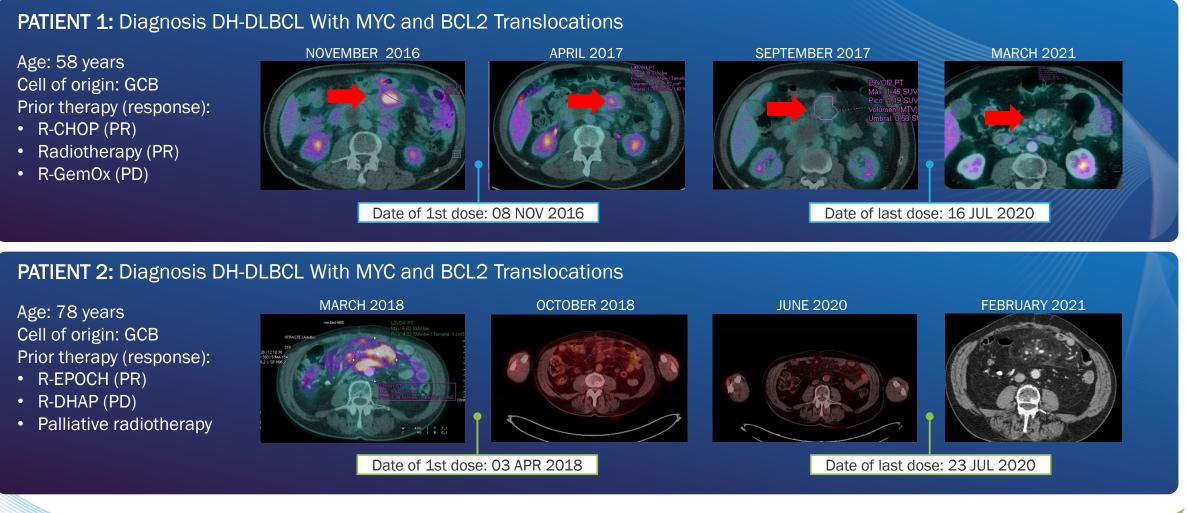
Gr, grade; NHL, non-Hodgkin lymphoma; ST, solid tumor. Frigault, et al. EHA 2022.

## Enitociclib Is Well Tolerated and Induces Durable Complete Responses (n=54)





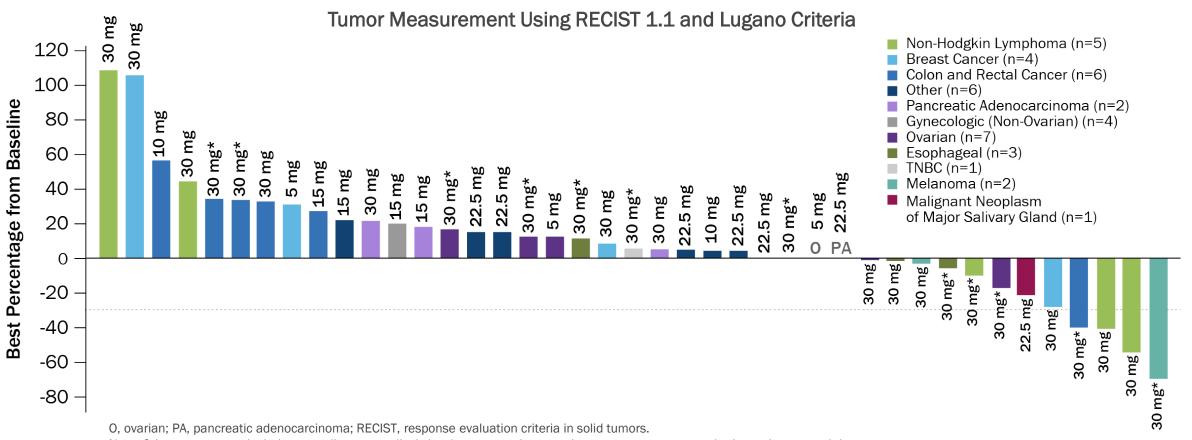
# Enitociclib Induces Durable Complete Remissions in Refractory DH-DLBCL





CHOP, cyclophosphamide, doxorubicin, vincristine, prednisone; DHAP, dexamethasone, cytarabine, cisplatin; EPOCH, etoposide, prednisone, vincristine, cyclophosphamide, doxorubicin; GCB, germinal center B-cell; GemOx, gemcitabine, oxaliplatin; PD, progressive disease; PR, partial response; R, rituximab.

# Enitociclib Demonstrates Reduction in Tumor Volume in Various Indications (n=41)



Note: Other tumor types include appendix cancer, clival chordoma, nasopharyngeal, prostate cancer, supraglottic carcinoma, and thymoma. \*Vincerx Pharma, Inc. enrolled patients.



## VNC-152-101 Lymphoma and Solid Tumors Study Design

PART 2: Expansion Cohort Arm 1

R/R Aggressive Lymphoma (n=40) MYC aberration required\*

• DH-DLBCL (n=10) Enrolling

 Transformed FL (n=10), MCL (n=10), other lymphoma group + MYC aberration (eg, DLBCL, Burkitt lymphoma) (n=10) Paused

PART 2: Expansion Cohort Arm 2

Advanced Solid Tumor (n=40) MYC aberration required\*

• Ovarian (n=10), TNBC (n=10), CRPC/NEPC (n=10), tumor agnostic group (n=10) Paused

#### PART 3/4: Combo in MYC+ Advanced Tumor (n=30)

Pembrolizumab + VIP152 in MYC+ advanced tumor (dose escalation + expansion) Paused

#### PART 5: Monotherapy Infusion Optimization R/R Aggressive Lymphoma (n=10)

- DH-DLBCL (n=10) Enrolling
- \*FoundationOne<sup>®</sup> (or similar commercial panel) or locally confirmed MYC overexpression/amplification/translocation required to enroll; n=10 for each group within each arm; total N=80. Each group within each arm will be evaluated separately for safety and efficacy.



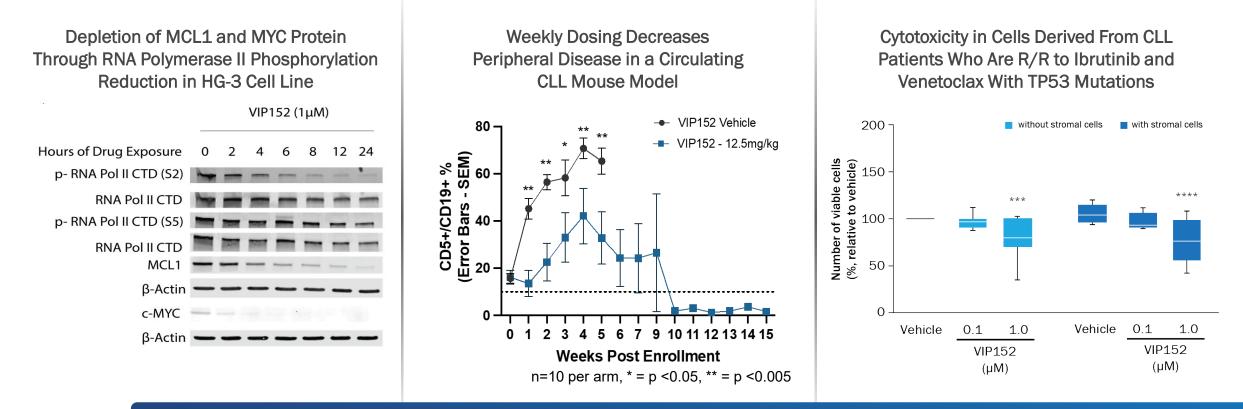
Paused

## PART 1: Dose Escalation *Completed*

- Study was conducted by Bayer (BAY 1251152)
- 37 patients treated
- DLT was neutropenia
- MTD at 30mg once-weekly IV

DLT, dose-limiting toxicity; MTD, maximum tolerated dose; R/R, relapsed/refractory.

## Targeting P-TEFb With Enitociclib (VIP152) in CLL



CDK9 is a proven R/R CLL target and may deliver residual disease eradication in BTKi combination

- Dinaciclib and flavopiridol monotherapy efficacy (ORR 25%-40%, PFS 7.5-13.7 months) reported in phase 2/3 CLL trials
- Like venetoclax, enitociclib also targets the anti-apoptotic pathway by downregulation of MCL1

CTD, C-terminal domain; ORR, overall response rate; PFS, progression-free survival; SEM, standard error of the mean. Sher, et al. ASH 2021. Frigault, et al. EHA 2022.



# VNC-152-102 CLL Study Design

#### PART 1: Dose Escalation *Enrolling* CLL refractory/intolerant to BTKi and Venetoclax

- Dose Level 1: 10mg > 15mg intra-patient dose escalation (n=3)
- Dose Level 2: 15mg > 30mg intra-patient dose escalation (n=3)
- Once-weekly 30-min IV

#### Enitociclib Monotherapy CLL (n=8)

 Patients with R/R high-risk (del17p or TP53 mutation) CLL who have received ≥ 1 prior therapy that includes venetoclax and have not achieved CR

#### OR

Received ≥ 2 prior therapies and intolerant to BTKi and/or venetoclax

#### PART 2: Enitociclib Combination With Approved BTKi (n=8)

- Dose Level 1: 20mg once-weekly (n=3)
- Dose Level 2: 30mg once-weekly (n=5)
- CLL patients currently on approved BTKi monotherapy >12 months who have only achieved SD, PR, or PR with lymphocytosis

#### Enitociclib Monotherapy Richter Syndrome (n=8)

CLL transformed to DLBCL R/R after at least 1 prior therapy

Enrollment to Part 2 will begin after the safety of monotherapy 30mg enitociclib once-weekly has been evaluated in 6 subjects with CLL or Richter Syndrome by the safety review committee.





## **Key Features of Enitociclib**

#### SAFETY

FAVORABLE SAFETY PROFILE IN THE CLINIC WITH MAINLY GR 1-2 TOXICITIES REPORTED

ON-TARGET TOXICITY OF NEUTROPENIA IS MANAGED BY ONCE-WEEKLY DOSING AND SUPPORTIVE CARE

#### **EFFICACY**

A POTENT AND THE MOST SELECTIVE CDK9 INHIBITOR CURRENTLY IN CLINICAL DEVELOPMENT

REPRODUCIBLE DOWNMODULATION OF MYC, MCL1, AND PCNA mRNA IN THE WHOLE BLOOD

DURABLE CRS OBSERVED IN 2 PTS WITH DH-DLBCL FOR ~5.5 AND ~4.0 YEARS, OF WHICH 3.7 AND 2.3 YEARS WERE ON TREATMENT

#### **COMMERCIAL POTENTIAL**

COMMERCIAL POTENTIAL ACROSS MULTIPLE INDICATIONS, BOTH HEMES AND SOLIDS

IP PROTECTION UNTIL 2033 (POTENTIAL FOR EXTENSION)

## BIOCONJUGATION PLATFORM



## Solutions to the ADC Problems

#### CHALLENGES

Side effects caused by cell-permeable DNAdamaging payloads or microtubule inhibitors

Premature release of cytotoxic payloads

ADC aggregation and unspecific cellular uptake driven by hydrophobic payloads

#### **VINCERX DESIGN SOLUTIONS**

Internalizing highly selective antibodies

Linker specifically cleaved intracellularly by legumain, a tumor-associated protease

KSPi, a novel payload class in ADCs that is hydrophilic

Impermeable payload — CellTrapper<sup>™</sup> attached to KSPi to reduce membrane permeability

KSPi payload with CellTrapper is hydrophilic

#### BENEFITS

Direct tumor targeting

Unique cleavage sequence (no unspecific cleavage) Second level of tumor targeting via specific ADC activation

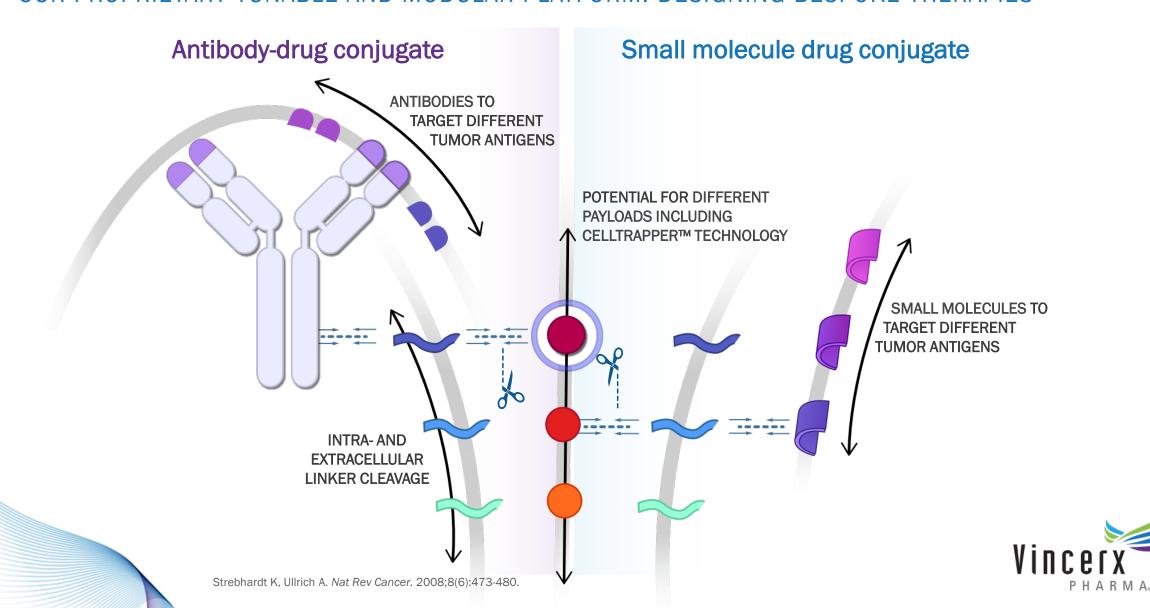
High potency and novel MoA Efficacy: Allows for high DAR without affecting PK Safety: No side effects associated with aggregation

Efficacy: High and long-lasting tumor accumulation Safety: No unspecific uptake of released payload into healthy cells Low/no toxicity in nondividing cells, no neurotoxicity Flexibility, compatible with different linker designs



DAR, drug antibody ratio; MoA, mechanism of action; PK, pharmacokinetics.

### <u>Delivering on the Promise of the "Magic Bullet"</u> OUR PROPRIETARY TUNABLE AND MODULAR PLATFORM: DESIGNING BESPOKE THERAPIES



# $\frac{VIP236}{\alpha_v\beta_3}\text{-optCPT}\,SMDC$



# $\begin{array}{l} \text{VIP236} \\ \alpha_V\beta_3 \text{ Small Molecule} \\ \text{Drug Conjugated to an} \\ \text{optCPT} \end{array}$

#### ENHANCED SAFETY AND PRECISION PROFILE

1

VIP236 is an  $\alpha_V \beta_3$  integrin binder linked to an optCPT payload

2

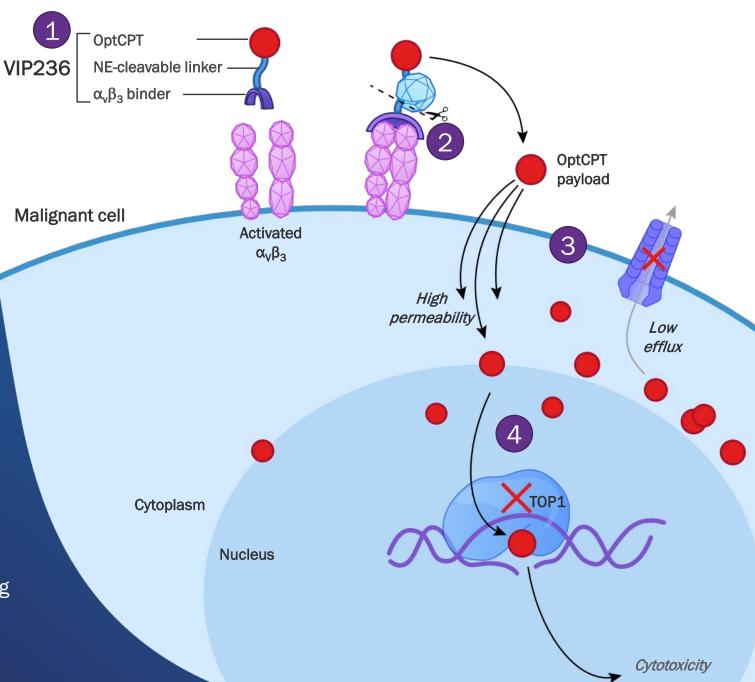
Payload is released by the enzyme NE in the tumor microenvironment



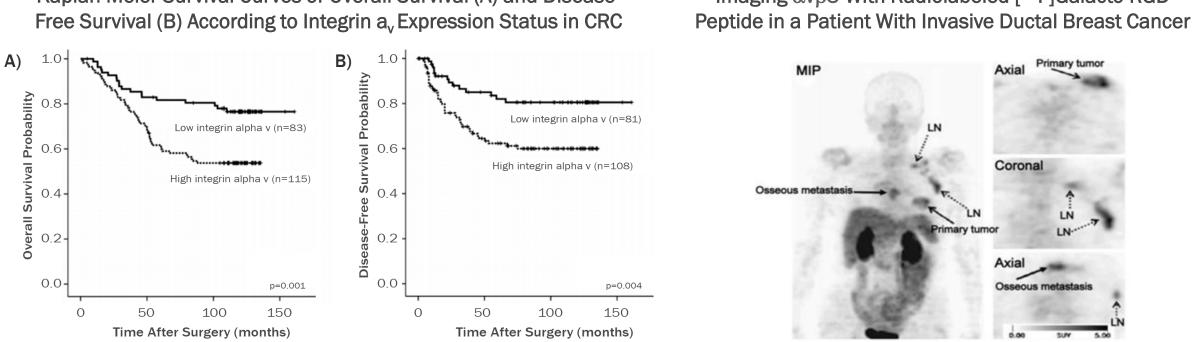
The payload accumulates in the tumor cell due to high permeability and resistance to drug transporters



The payload inhibits topoisomerase 1 causing DNA damage and leading to cytotoxicity



## $\alpha_{\nu}\beta_{3}$ Is a Target Across Solid Tumor Indications



Kaplan-Meier Survival Curves of Overall Survival (A) and Disease-Imaging  $\alpha \nu \beta 3$  With Radiolabeled [<sup>18</sup>F]Galacto-RGD

- $\alpha_{\nu}\beta_{3}$  is absent on resting endothelial cells and healthy organs ۰
- High expression on activated endothelial cells and in advanced and metastatic tumors •
- Expression correlates with poor prognosis in CRC and in other indications •

Ha SY, et al. J Clin Pathol. 2014;67(7):576-587. Chen H, et al. Theranostics. 2016;6(1):78-92.

Anti-angiogenic therapies targeting  $\alpha_{\nu}\beta_{3}$  showed good safety profile with optimal homing to the tumor and metastasis but with limited efficacy •





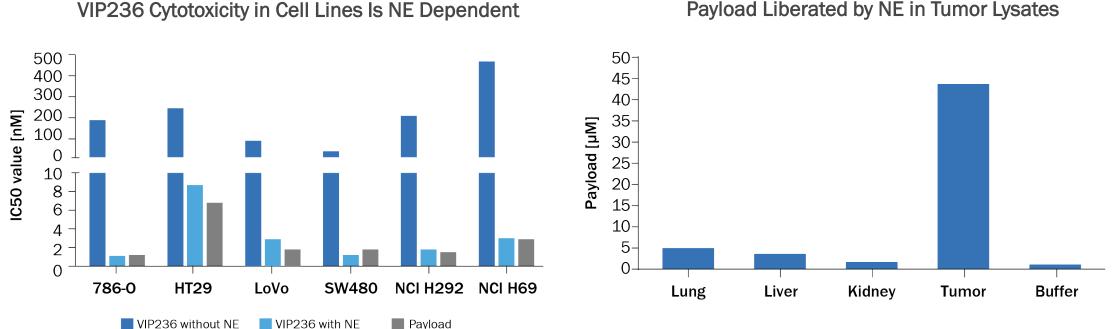
## VIP236 Specifically Binds to Activated $\alpha_v \beta_3$ in the Tumor

#### Near-Infrared Imaging of $\alpha_{v}\beta_{3}$ Ligand Binding (LI-COR Pearl Imager) Carboxylate dye Nonbinding-IR800 $\alpha_{v}\beta_{3}$ ligand-IR800 4,75E0 tumor tumor tumor 4,00E0 3,00E0 1,70E0 8,00E-1 5,50E-4 0000334 01 0000336 01 0000349 01 6,76E0 6,00E0 5,00E0 4.00E0 3.00E0 48h 1,40E0 1,00E-3 0000340 01 0000351\_01 0000335 01

- Highly specific binding of VIP236 to activated  $\alpha_v \beta_3$  in the tumor (>40-fold increase in signal as compared with other organs)
- In normal tissue,  $\alpha_v \beta_3$ present in an inactive form (bend structure)



## VIP236 Cytotoxicity Requires Tumor NE to Release Payload

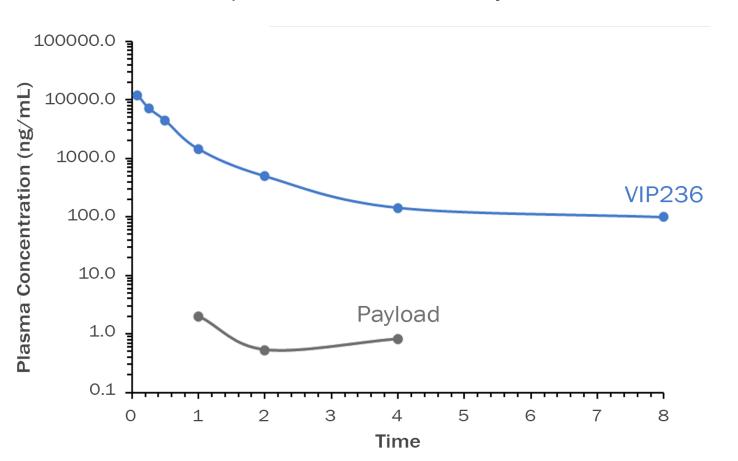


Payload Liberated by NE in Tumor Lysates

- Specific cleavage by NE is required for activation of the payload ٠
- NE activation of payload does not interfere with achieving optimal cytotoxic activity of the payload •
- Lysates derived from HCT 116 xenograft mouse model confirm the highly selective release of the payload in the tumor •



## VIP236 Is Highly Stable in Plasma With Low Exposure of Payload



Stable Exposure of VIP236 and Low Payload in Plasma

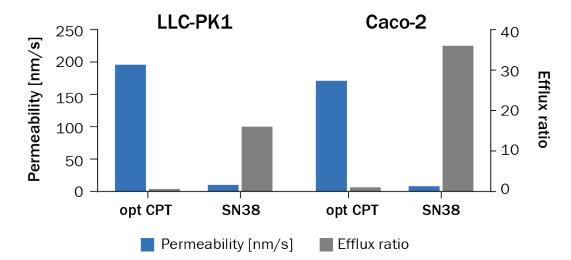
- Low exposure of the payload in plasma <u>measured in PK analysis</u>
- High stability in rat plasma of VIP236 with no degradation within 24h (data not shown)



VIP236 (2mg/kg) single dose in mice

## OptCPT Payload Overcomes SN38 Transporter Efflux Liabilities

#### Permeability and Efflux Ratio With P-gp-Expressing LLC-PK1 and Caco-2 Cells



#### Cytotoxicity of optCPT and SN38 in NCI-H1975 Parental and P-gp or BCRP Transporter Overexpressing Cells

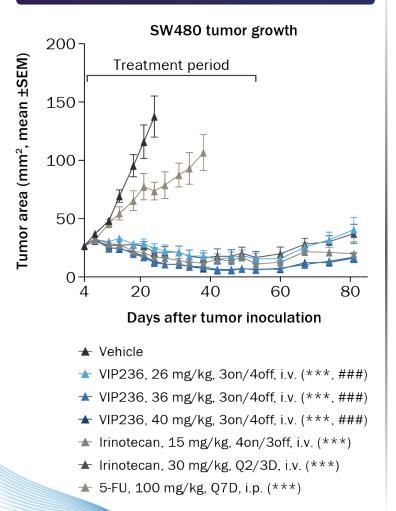
	IC50 (nM)			
Compound	NCI-H1975	NCI-H1975 — P-gp	NCI-H1975 – BCRP	
SN38	45	141	512	
OptCPT	19	34	27	

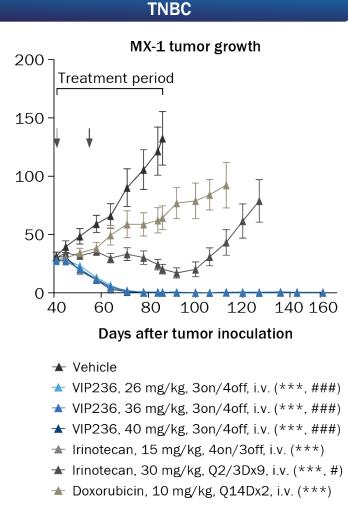
- Payload: structurally related to the active metabolite of irinotecan known as SN38
- The payload of VIP236 is optimized for high permeability with low efflux potential to overcome transporter-mediated resistance observed with SN38
- The optCPT payload of VIP236 is not a P-gp or BCRP (ABCG2) transporter substrate showing no decreased cytotoxicity in transporter-expressing cell lines
  - In contrast, SN38 cytotoxicity decreases in transporter-expressing cell lines

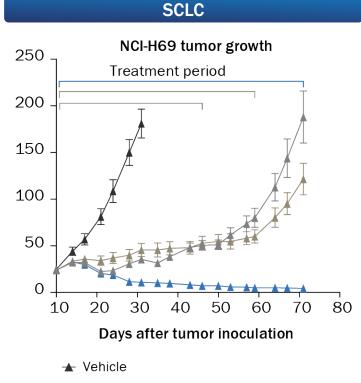


## Significant Tumor Regression Observed Across Various Xenograft Models With VIP236 Treatment

MSS CRC







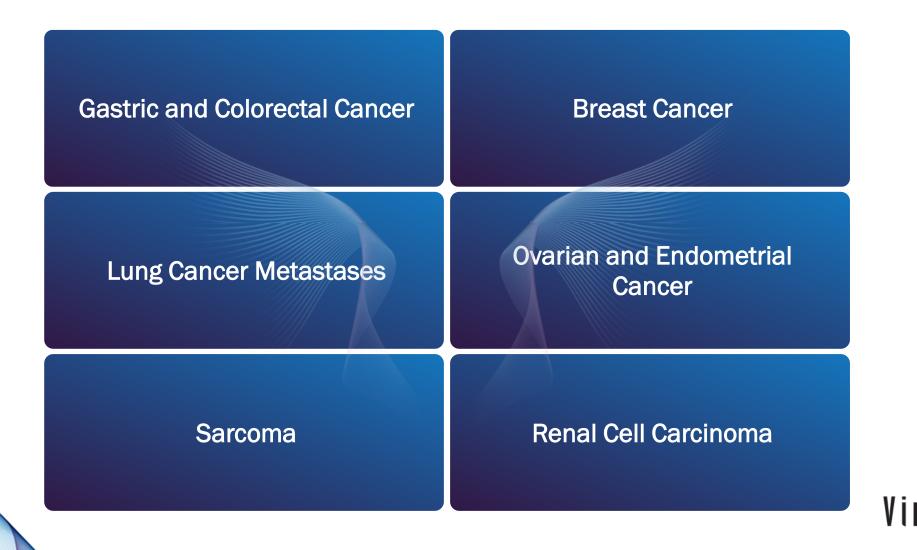
- ★ VIP236, 40 mg/kg, 3on/4off, i.v. (\*\*\*, #)
- ★ Topotecan, 0.5 mg/kg, 7on/7off, i.v. (\*\*\*)
- ★ Cisplatin, 3 mg/kg, Q3Dx14, i.p. (\*\*\*)



5-FU, fluorouracil; MSS, microsatellite stable; SCLC, small cell lung cancer. *P* value <0.05 flagged (\*), *P*-value <0.01 (\*\*), *P*-value <0.001 (\*\*\*). \* compared with vehicle, # compared with 5-FU in SW480, doxorubicin in MX-1, and cisplatin in NCI H69 model.

# **VIP236** Potential Indications

# HIGH EXPRESSION OF $\alpha_V\beta_3$ IS OBSERVED IN ADVANCED AND METASTATIC TUMORS AND CORRELATES WITH POOR PROGNOSIS





### Key Features of VIP236

### SAFETY

TAILORED SMDC DESIGNED TO SELECTIVELY BIND TO TUMOR CELLS OF METASTATIC CANCERS

TARGET AND LINKER TECHNOLOGY DRIVES TUMOR SELECTIVITY AND PAYLOAD ACTIVATION

optCPT OVERCOMES SN38 TRANSPORTER EFFLUX LIABILITIES

### **EFFICACY**

ACTIVATED  $\alpha_{\!\nu}\beta_3$  IS HIGHLY EXPRESSED IN INVASIVE TUMORS

EXTRACELLULAR LINKER CLEAVAGE BY NE PROVIDES SELECTIVE ACTIVATION

10x GREATER DELIVERY OF PAYLOAD TO TUMOR

DURABLE TUMOR REGRESSIONS IN VIVO

SIGNIFICANT REDUCTION OF METASTASES IN VIVO

### **COMMERCIAL POTENTIAL**

PROVEN PAYLOAD CLASS IN CLINIC

BROAD PATIENT POPULATION OPPORTUNITY IN MULTIPLE SOLID TUMOR INDICATIONS



# **ADC Platform**

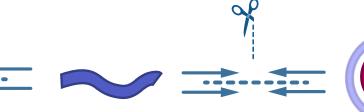
# Solving ADC Problems With Innovative Technology INCREASING THE THERAPEUTIC WINDOW BY IMPLEMETING ADDITIONAL SAFETY FEATURES

### ANTIBODY

- High affinity to tumor-specific antigen
- Internalizing antibody
- Solutions for non-internalizing antibody
  available for nontractable targets

### **CELLTRAPPER™**

- Reduced payload cell membrane permeability allows
  accumulation of payload in the tumor cell
- Released payload cannot enter healthy cells



### LINKER

- Intracellular cleavage by legumain, a specific lysosomal protease avoiding premature cleavage
- Legumain is overexpressed in tumors vs normal cells and associated with poor prognosis
- Modular technology with extracellular cleavage possible
- Site-specific or non-site-specific linker payload conjugation available for tunable DAR

### PAYLOAD

- KSPi, a novel, high-potency MoA payload specific for dividing cells
- · Low/no toxicity in nondividing cells, no neurotoxicity
- · Potential to induce immunogenic cell death
- Alternative payloads/potency available



# VIP943 CD123-KSPi ADC

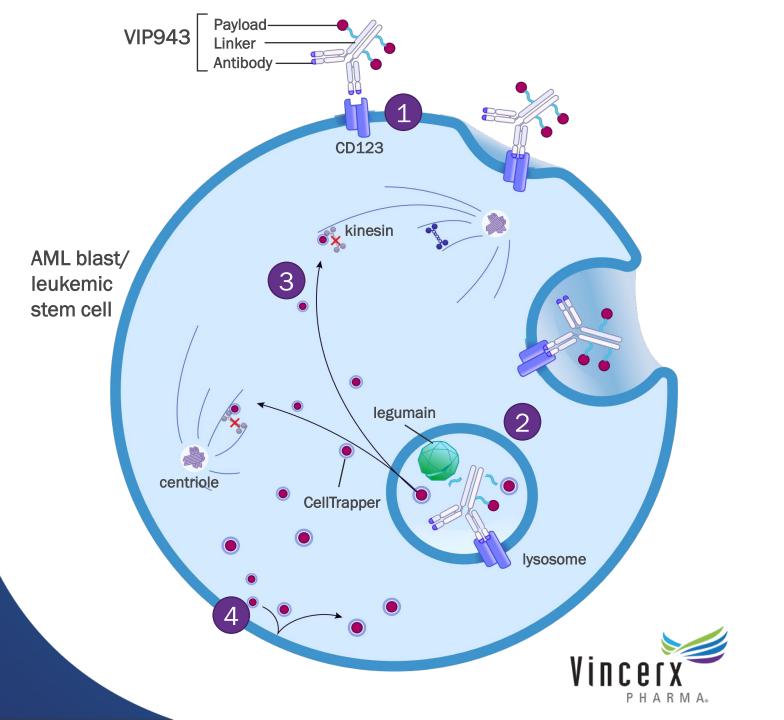


# VIP943 CD123-KSPi

### ANTIBODY-DRUG CONJUGATE FOR TREATMENT OF AML & MDS

1

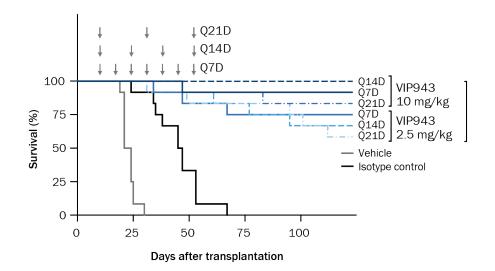
- CD123 is a validated target in myeloid malignancies and a potential leukemic stem cell target
- VIP943-targeting Ab is internalized upon binding to CD123 linked to a legumain released KSPi
- 3 Payload targets KSP stopping cell division and causing catastrophic cell death
  - CellTrapper<sup>™</sup> modified payload is hydrophilic and accumulates in the tumor cell for improved safety and tolerability for long-term therapy and targeting leukemic stem cells



# VIP943 Increases Survival in AML Models

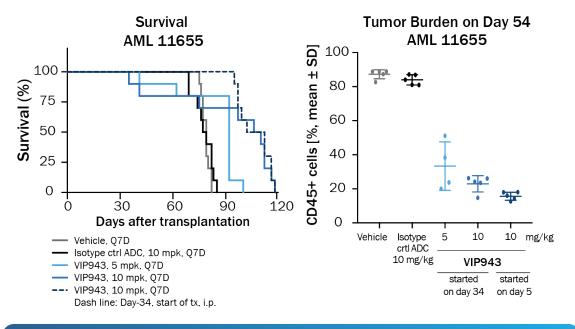
# AML CELL-LINE (CDX) AND PATIENT-DERIVED (PDX) TUMOR MODELS TREATED WITH TARGETED ADC VS ISOTYPE CONTROL ADC

Striking Improved Survival in AML Model



- Increased survival in disseminated CD123+ AML CDX model MOLM-13, treated Q7Dx7
- Improved efficacy of targeted vs isotype control ADC

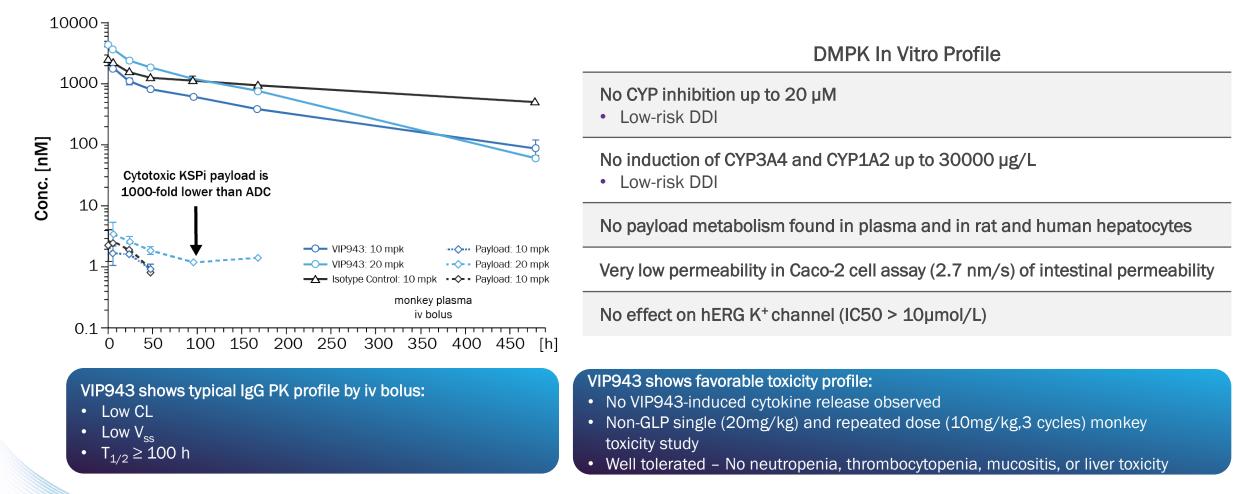
#### Improved Survival and Reduction in Tumor Burden in AML PDX Model



- Increased survival in disseminated CD123+ AML PDX model AML11655, treated Q7D
- Reduction of CD45+ AML tumor burden



# VIP943 Favorable Safety in Monkey and Optimal DMPK Profile DOSE LINEARITY AND HIGH ADC EXPOSURE; LOW PLASMA CONC. OF FREE PAYLOAD





CL, clearance; CYP, cytochrome P450; DDI, drug-drug interaction; DMPK, drug metabolism and pharmacokinetics; GLP, good laboratory practices; IgG, immunoglobulin G; T<sub>1/2</sub>, half life; Vss, volume of distribution.

# VIP943 Is Designed to Address Safety Liabilities of ADCs Approved in Hematologic Malignancies

	MYLOTARG™	BESPONSA®	POLIVY™	ADCETRIS®	VIP943			
PRECLINICAL TARGET ORGAN TOXICITY					Cynomolgus Macaque			
Bone Marrow/Lymph Nodes	+	•	+	•	Not observed			
Liver	+	+	+	+	Not observed			
CLINICAL TRIAL SEVERE ADVERSE EVENTS					Linker	KSPi	CELLTRAPPER™	
Myelosuppression		**	++	**	$\checkmark$	$\checkmark$	$\checkmark$	
Infections/PML			++	***	$\checkmark$	$\checkmark$	$\checkmark$	
Hepatotoxicity/VOD	***	***	++	**	$\checkmark$		$\checkmark$	
Peripheral Neuropathy			++	**	$\checkmark$			

- +: Present
- ++: Warnings & precautions
- +++: Black box warning
- $\checkmark$ : Designed to address AEs

PML, progressive multifocal leukoencephalopathy; VOD, veno-occlusive disease.



Source: Drugs@FDA

## **VIP943** Potential Indications

CD123 IS A VALIDATED TARGET IN MYELOID MALIGNANCIES INCLUDING LEUKEMIC STEM CELLS







# Key Features of VIP943

### SAFETY

#### HIGHLY FAVORABLE SAFETY PROFILE IN MONKEY **TOXICITY STUDIES**

NO NEUTROPENIA, THROMBOCYTOPENIA, MUCOSITIS, OR LIVER TOXICITY FINDINGS IN MONKEY TOXICITY LINEAR PK PROFILE WITH LOW FREE PAYLOAD

**EXPOSURE IN PLASMA** 

# **EFFICACY**

BEST-IN-CLASS ADC, USING KSPi AS NOVEL PAYLOAD

ABSENCE OF MYELOSUPPRESSION SUPPORTS **DEVELOPMENT IN AML/MDS** 

DOSE-DEPENDENT TUMOR REDUCTION **OBSERVED IN SEVERAL IN VIVO MODELS** 

### **COMMERCIAL POTENTIAL**

**OPPORTUNITY FOR IMPROVEMENT IN SAFETY AND** EFFICACY OVER CURRENT SOC

POTENTIAL AS MONOTHERAPY OR AS PREFERRED COMBINATION PARTNER

**OPPORTUNITY FOR ACCELERATED APPROVAL** 

POTENTIAL FOR FIRST-LINE TREATMENT IN AML AND MDS

# VIP924 CXCR5-KSPi ADC

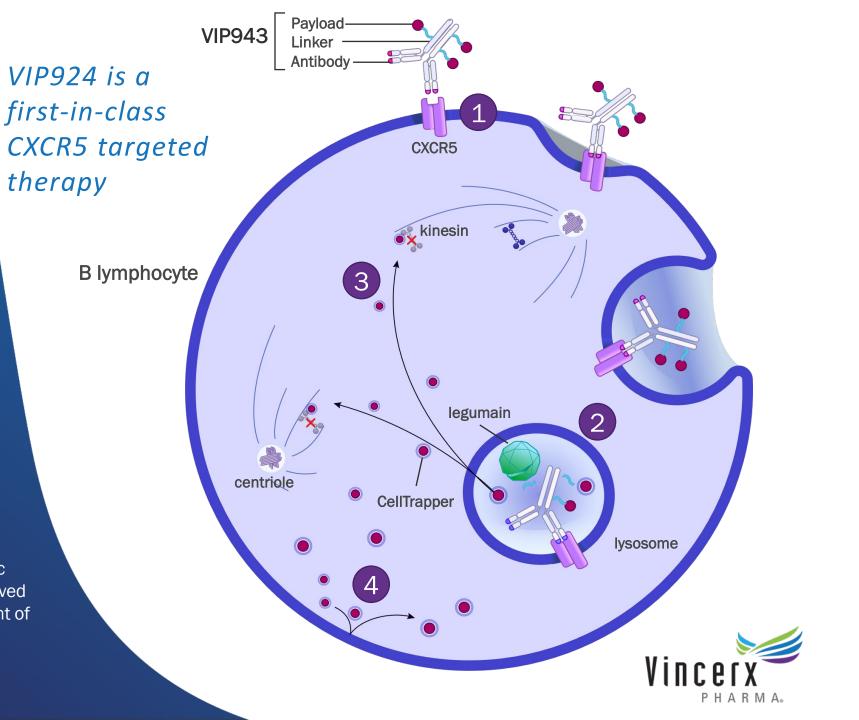


# VIP924 CXCR5-KSPi

### FOR TREATMENT OF B-CELL MALIGNANCIES

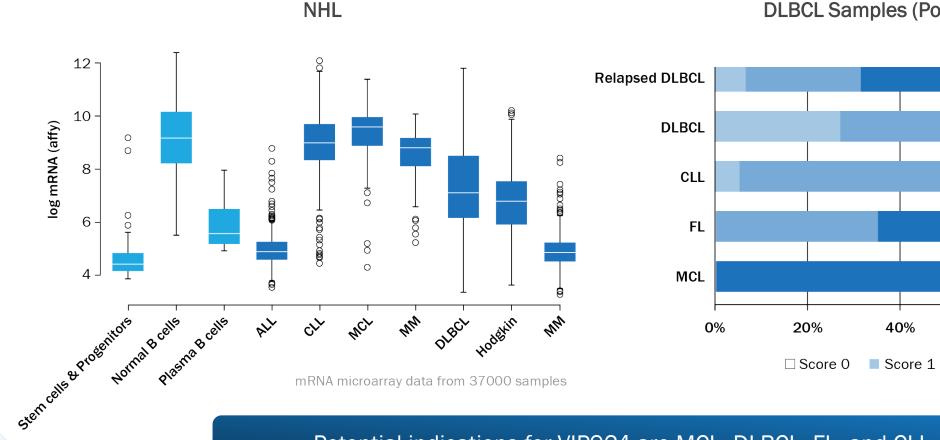
CXCR5 regulates chemotaxis, germinal center formation, and plasma and memory B-cell differentiation

- VIP924 has an internalizing Ab upon binding to CXCR5 which is linked to a legumain released KSPi that drives cell death during cell division
- Payload targets KSP stopping cell division and causing catastrophic cell death
- CellTrapper<sup>™</sup> modified payload is hydrophilic and accumulates in the tumor cell for improved safety and tolerability for long-term treatment of B-cell malignancies



# CXCR5 Is Expressed in B-Cell Malignancies

High CXCR5 mRNA Across



CXCR5 IHC Staining Is Present in 16/16 Relapsed DLBCL Samples (Post–R-CHOP therapy)

60%

Score 2

Potential indications for VIP924 are MCL, DLBCL, FL, and CLL



80%

Score 3

n=16

n=20

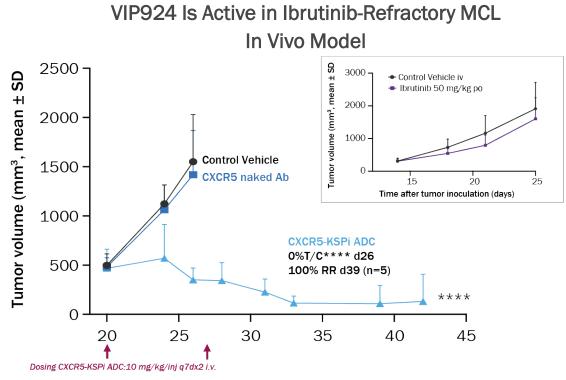
n=20

n=20

n=30

100%

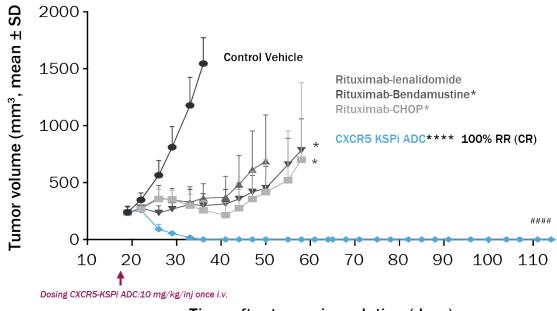
## VIP924 Induces Sustained Tumor Regression in MCL and DLBCL Models



Time after tumor inoculation (days)

- Ibrutinib-refractory MCL CDX CXCR5+ REC-1 model (inset)
- VIP924 achieved complete remission after 2 doses





#### Time after tumor inoculation (days)

- Complete regression with single dose of VIP924 in CXCR5+ model OCI-LY1 (day 114)
- Superior activity versus SOC



\*\*\*\*P=0.0001 vs vehicle one-way ANOVA, Dunnett-method on Log transformed tumor volumes on day 26. \*P<0.05. \*\*\*\*P=0.0001 vs vehicle. ####P<0.0001 vs rituximab-bendamustine/ lenalidomide or CHOP. One-way ANOVA, Tuckey-method on Log transformed tumor volumes on day 36. RR, response rate.

### VIP924 Potential Indications CXCR5 IS EXPRESSED IN B-CELL MALIGNANCIES

### Diffuse Large B-Cell Lymphoma

### Chronic Lymphocytic Leukemia

### Follicular Lymphoma

### Mantle Cell Lymphoma





### Key Features of VIP924

### SAFETY

SURROGATE DATA FROM VIP943, WITH SAME LINKER PAYLOAD, SUGGEST A HIGHLY FAVORABLE SAFETY PROFILE WITHOUT NEUTROPENIA, THROMBOCYTOPENIA, MUCOSITIS, OR LIVER TOXICITY

### **EFFICACY**

CXCR5 IS A NOVEL B-CELL MALIGNANCY TARGET

UTILIZES A KSPI AS A PROPRIETARY PAYLOAD WITH CELLTRAPPER™ MOIETY

COMPLETE REMISSION IN CXCR5+ LYMPHOMA IN VIVO MODELS INCLUDING IBRUTINIB-REFRACTORY MCL AND DLBCL

### **COMMERCIAL POTENTIAL**

OPPORTUNITY FOR IMPROVEMENT IN SAFETY AND EFFICACY OVER CURRENT SOC

POTENTIAL AS MONOTHERAPY OR AS PREFERRED COMBINATION PARTNER

OPPORTUNITY FOR ACCELERATED APPROVAL POTENTIAL FOR FIRST-LINE TREATMENT IN B-CELL MALIGNANCIES

# **Expected Upcoming Milestones**







### A STRONG MANAGEMENT TEAM WITH A PROVEN TRACK RECORD OF SUCCESSES

#### HIGHLY EXPERIENCED IN VALUE CREATION BY DELIVERING MULTIPLE APPROVALS AND SUCCESSFUL M&As

>20 YEARS OF EXPERIENCE IN CDK9 SPACE

>15 YEARS OF ADC DEVELOPMENT EXPERIENCE FROM DISCOVERY TO CLINICAL DEVELOPMENT PHASE 1 ASSET WITH PROOF OF CONCEPT IN MULTIPLE INDICATIONS

ENITOCICLIB WITH SINGLE-AGENT DURABLE REMISSIONS IN AGGRESSIVE DH-DLBCL

ACCELERATED APPROVAL OPPORTUNITIES AS A POTENTIAL BEST-IN-CLASS MONOTHERAPY

SAFETY PROFILE WILL SUPPORT FUTURE COMBINATION STUDIES

PHASE 2 STUDIES IN 2023

### INNOVATIVE, NEXT-GENERATION BIOCONJUGATION PLATFORM

MODULAR TECHNOLOGY DESIGNED TO ADDRESS CHALLENGES OF APPROVED ADCs

PROPRIETARY LINKER PAYLOAD TECHNOLOGY REPRESENT POTENTIAL FIRST-IN-CLASS AND BEST-IN-CLASS OPPORTUNITIES

VIP236 IND EXPECTED IN 2H2022, VIP943 AND VIP924 INDs EXPECTED IN 2H2023 AND 1H2024