



# Targeted therapeutics at the forefront of oncology

## CORPORATE PRESENTATION

September 2020



## • **Note on the presentation and forward looking statements**

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# Ryvu at a glance



## Developing small molecule therapies which address high value emerging targets and pathways in oncology

- Diverse pipeline with mechanisms of action spanning kinase inhibition, RNA transcription, synthetic lethality (SMARCA2, WRN, MTAPdel cancers) and immuno-oncology (A2A/A2B, STING, HPK1)
- Initial focus of pipeline on hematological malignancies, with near term expansion planned in solid tumors



## Wholly owned, first-in-class, selective oral CDK8/19 inhibitor (SEL120) with therapeutic potential in multiple indications and clinical data in 2021 in Phase Ib study

- Applicable across indications: acute myeloid leukemia (AML), myelodysplastic syndrome (MDS), hematological and solid tumors
- Trial in lead indication (AML/MDS) enrolling across 6 sites in USA with first data available in early 2021



## First-in-class dual PIM/FLT3 kinase inhibitor (SEL24) for Acute Myeloid Leukemia (AML) in Phase II - partnered with Menarini

- Dual-targeting of PIM and FLT3 designed to facilitate broader activity and potentially more durable responses
- Single agent efficacy shown in relapsed/refractory AML patients with acceptable safety profile demonstrated in Phase I



## Broad early-stage pipeline delivering potential near-term clinical candidates and robust internal drug discovery engine

- Significant pipeline momentum with 2 programs expected to enter the clinic in 2021 (A2A/A2B, STING) and 2 near-term preclinical or late discovery targets (HPK1, SMARCA2)
- Deep discovery capability and track-record in generating clinical candidates; validated by partnerships including Galapagos research collaboration



## Listed on Warsaw Stock Exchange, market cap of \$276m<sup>1</sup>

- One of the largest drug discovery companies in the region, headquartered in Kraków, Poland
- ~\$44m cash position<sup>2</sup> and significant non-dilutive grant funding (>\$26m secured till 2023)

# Broad pipeline addressing emerging targets in oncology

## CLINICAL PROJECTS

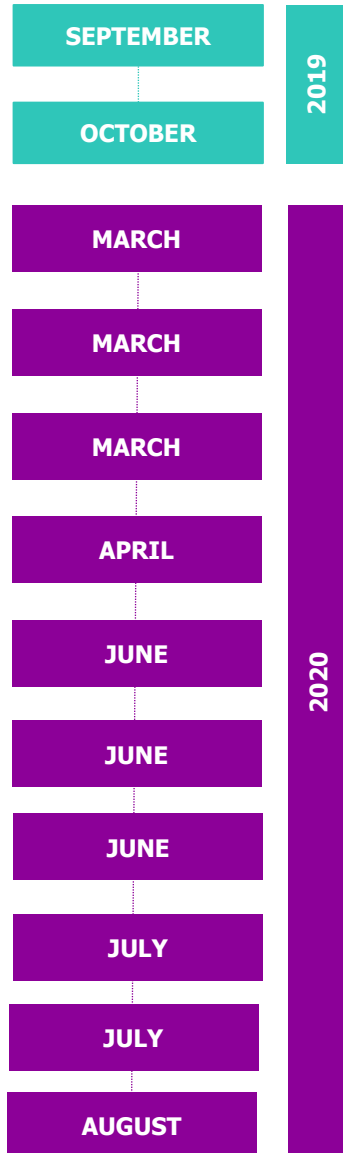
PROGRAM / TARGET NAME	INDICATION	DISCOVERY	PRECLINICAL	PHASE I	PHASE II	PARTNER	ANTICIPATED MILESTONES
SEL24/MEN1703 PIM/FLT3	AML					MENARINI	Phase I data EHA June 2020
SEL120 CDK8/19	AML/MDS					LEUKEMIA & LYMPHOMA SOCIETY	Phase I data H1 2021
	SOLID TUMORS						Initiation of Phase I 2021

## DISCOVERY & PRECLINICAL PROJECTS

PROGRAM / TARGET NAME	INDICATION	DISCOVERY	PRECLINICAL	PHASE I	PHASE II	PARTNER	ANTICIPATED MILESTONES
IMMUNO-ONCOLOGY							
A2A/A2B	SOLID TUMORS						IND filing 2021
STING	SOLID TUMORS						IND filing 2021
HPK1	SOLID TUMORS						Pre-clinical candidate 2021
SYNTHETIC LETHALITY							
SMARCA2	SOLID TUMORS						
MTAP DELETIONS	SOLID TUMORS						
WRN	SOLID TUMORS						
DISCOVERY COLLABORATIONS					Galápagos	MERCK	



# Strong momentum from 2019 and 2020'YTD



- ✓ First patient dosed with SEL120
- ✓ Corporate split between Ryvu Therapeutics and Selvita (CRO) completed, >\$100M incremental value created for Ryvu shareholders
- ✓ SEL24 – successfully completed Phase I in acute myeloid leukemia patients
- ✓ SEL120 – orphan drug designation in AML by FDA
- ✓ SEL24 – FDA approval for the initiation of Phase II
- ✓ Collaboration with Galapagos in inflammatory disorders announced
- ✓ Ryvu spin-out company NodThera raises \$55 M Series B funding
- ✓ Clinical posters at EHA 2020 - SEL24 Phase I data, SEL120 trial in progress
- ✓ Data updates from SEL120 and multiple pre-clinical programs (STING, SMARCA, HPK1, A2A/A2B) presented at AACR Conference
- ✓ Completed construction and move into a new fully-owned \$20M research center in Krakow
- ✓ PLN 143M (\$39 M) raised in a follow-on public offering
- ✓ Filed CTA for SEL120 Phase 1 study in Europe

# SEL120: Highly selective first-in-class CDK8/CDK19 inhibitor with broad potential in hematological malignancies and solid tumors



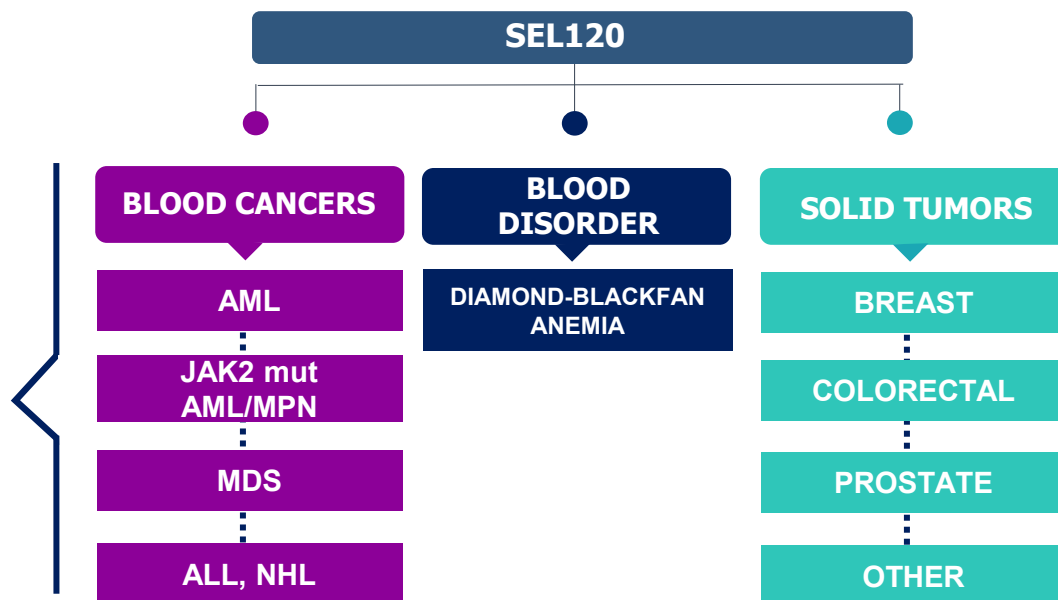
Orphan drug designation in AML in 2020



Therapy Acceleration Program (TAP) grant support  
**Total funding - \$3.25 M**

## New treatment options in hematological disorders

- Direct cytotoxicity (induction of apoptosis)
- Eradication of Leukemic Stem Cells (LSC) known to be responsible for tumor relapse in AML
- Preclinical data indicate safe and synergistic combination with standard-of-care chemotherapy and approved targeted therapies
- Opportunity in another orphan indication (Diamond-Blackfan anemia)



## Emerging therapeutic opportunities in solid cancers

- Precise, targeted mode of action by transcriptional regulation of cancer-dependent genes
- Preclinical data to support broad potential in multiple solid tumors with unmet medical needs
- Modulation of immune cell activity (NK cells) as additional component of anticancer activity

# First therapeutic area of Ryvu focus: acute myeloid leukemia

Most common, highly aggressive type of acute leukemia in adults with poor outcomes in most patients<sup>1</sup>



~20,000 new cases diagnosed  
and >11,000 deaths in the US in 2018<sup>2</sup>



AML makes up 1% of all cancers  
and 34% of all adult leukemia cases<sup>2,3</sup>



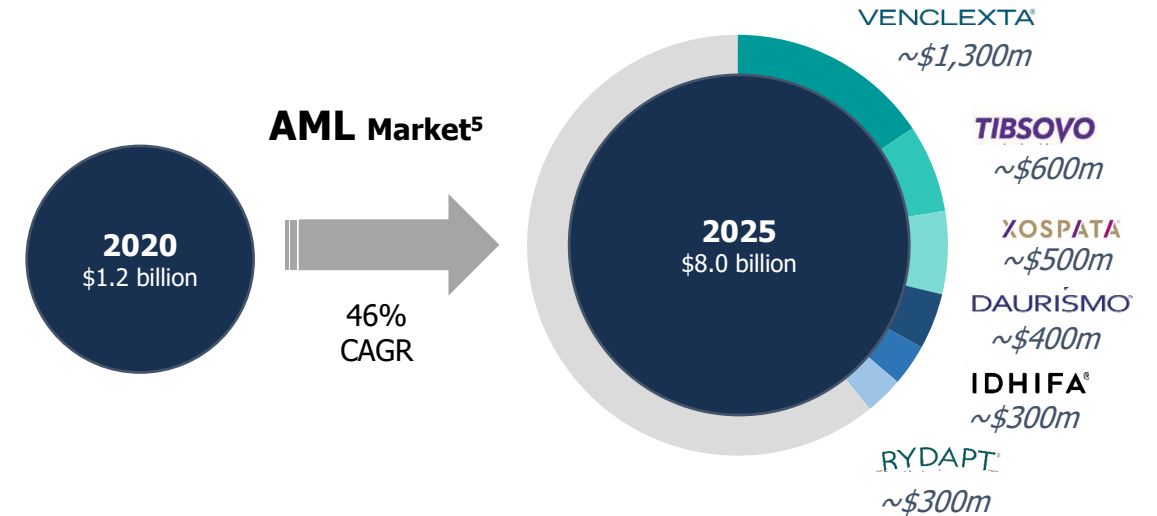
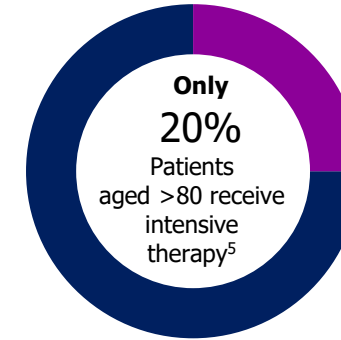
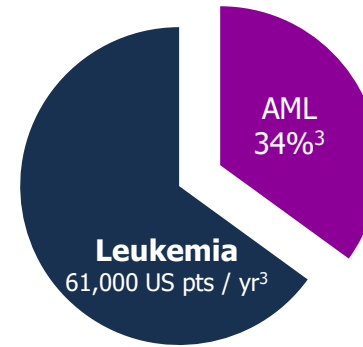
Occurs in a predominantly elderly, frail patient population;  
75% of patients diagnosed with AML were aged >60 years<sup>4</sup>



Lowest survival among all blood cancers;  
only 26% patients surviving 5 years after diagnosis



























30% AML patients with a ITD mutation in the FLT3 gene  
have a less favorable prognosis, 70% of patients refractory  
to current inhibitors targeting FLT3 mut



1 Mayo Clinic  
2 Cancer.net  
3 Leukemia & Lymphoma society  
4 Walter, R; *Leukemia* 2015  
5 Evaluate Pharma

# Clinical landscape: targeted small molecule therapies for AML

CDK8/CDK19			
FLT3			  
Dual PIM/FLT3	 		
PIM	  		
IDH1 or IDH2			 
Others	      		 
	Phase 1/2	Phase 3	Approved

✓ SEL120 IS THE ONLY CDK8/CDK19 INHIBITOR IN CLINICAL DEVELOPMENT

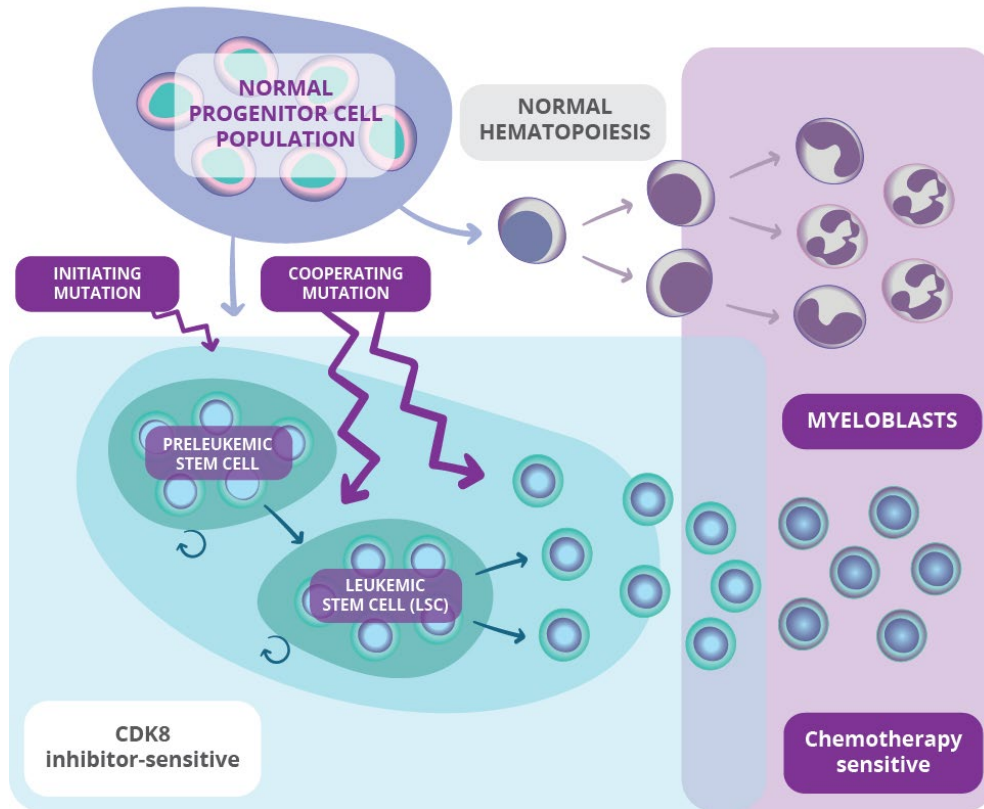
✓ MEN1703/SEL24 IS AN UNIQUE, CLINICAL-STAGE DUAL PIM/FLT3 INHIBITOR

## RYVU CLINICAL PROGRAMS DESIGNED TO FULFILL UNMET NEEDS IN AML

- OVERCOMING RESISTANCE TO SINGLE-TARGET MUTATION-SPECIFIC INHIBITORS
- EFFICACY IN BROADER PATIENT POPULATIONS
- REDUCING CHEMOTHERAPY-BASED TREATMENT REGIMENS
- FULLY ORAL REGIMEN



## SEL120: potential role of CDK8/CDK19 in AML treatment



### RATIONALE FOR CDK8/CDK19 INHIBITORS IN AML

- Transcriptional deregulation is a hallmark of AML
- CDK8 is a kinase subunit of the Mediator complex serving as a bridge between basal transcription and regulatory elements involved in:
  - Deregulation of super enhancers (SE)
  - Affected differentiation and pro/anti-apoptotic genes

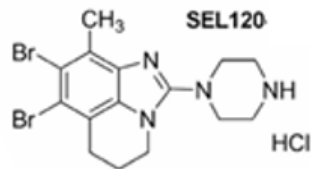
### EFFICACY OF SEL120 - CDK8/CDK19 INHIBITOR - IN AML

- Selectively targets leukemic cells, sparing normal blood cells (unaffected normal hematopoiesis)
- Promotes cell death (differential cytotoxicity on STAT5+ AML)
- Represses increased levels of anti-apoptotic proteins and induces lineage commitment genes in undifferentiated AML cells

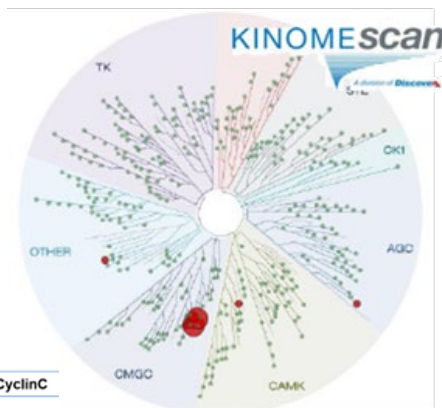
# Excellent on-target activity of SEL120 in pSTAT positive AML cell models

SEL120 is a potent and selective CDK8/CDK19 inhibitor

Low nM activity on CDK8/CDK19  
and excellent kinase selectivity (broad kinome)



IC <sub>50</sub> [nM]	CDK8/CyclinC	CDK19/CyclinC
SEL120	4.4	10.4

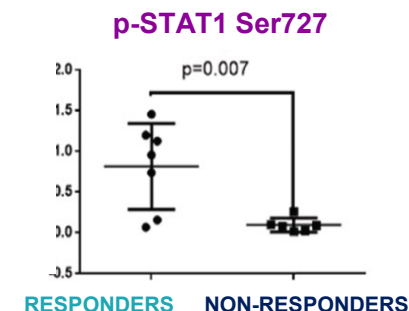
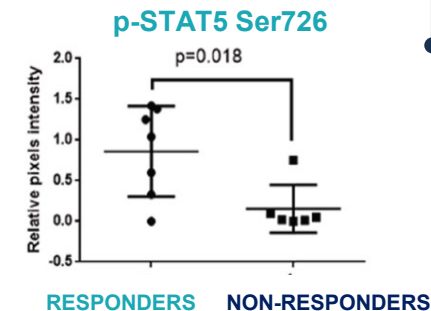
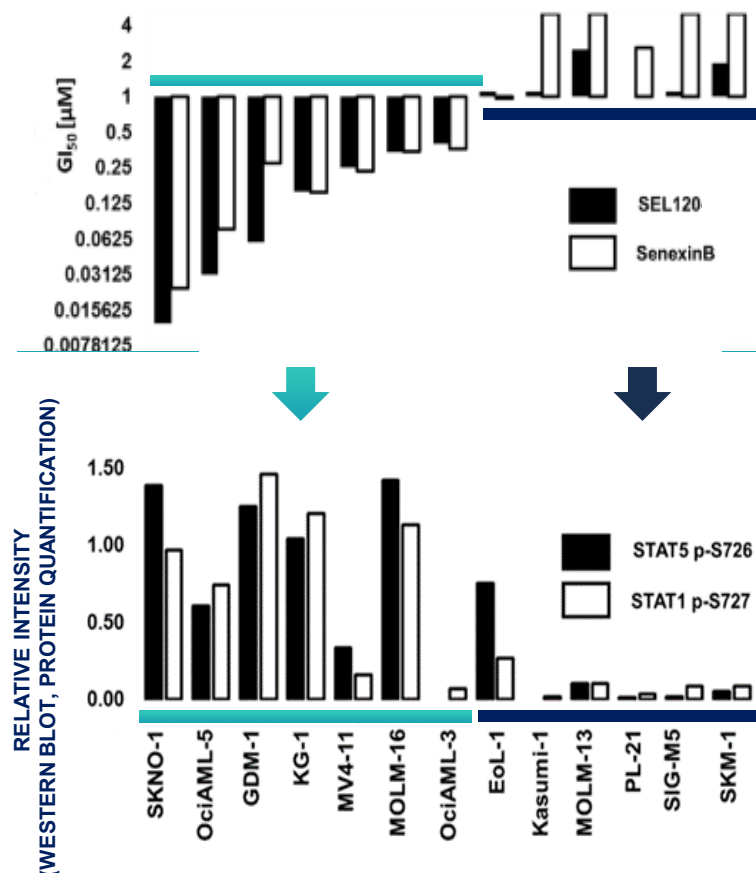


- Spares CDK2, CDK4, CDK6, CDK7, CDK9, etc.
- Type I, ATP-competitive mechanism of binding and inhibition of CDK8/19 activity
- Lack of binding to off-targets potentially associated with toxicity of pre-clinical EMD Serono CDK8/19 inhibitors (such as JNK1 or GSK3b)<sup>1</sup>
- Higher selectivity based on comparison of gene expression effects<sup>2</sup>
- Composition of matter patents granted in 2017

<sup>1</sup>Chen et al. 2019

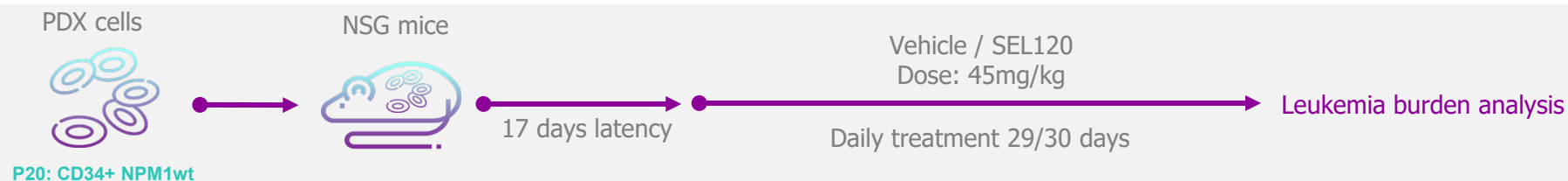
<sup>2</sup>Rzyski et al. 2017

pSTAT1/pSTAT5 levels discriminate responder/ non-responder

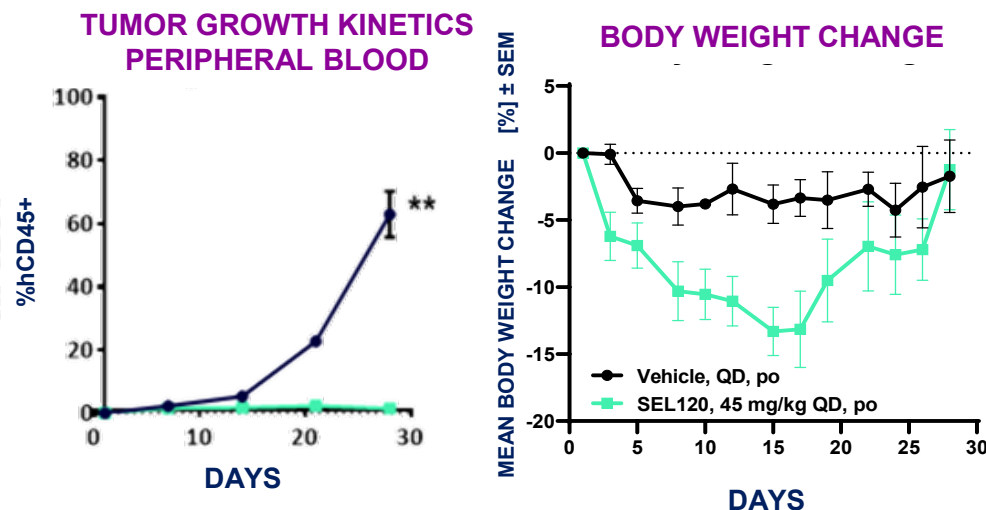


# SEL120 induces complete regression and bone marrow recovery in AML

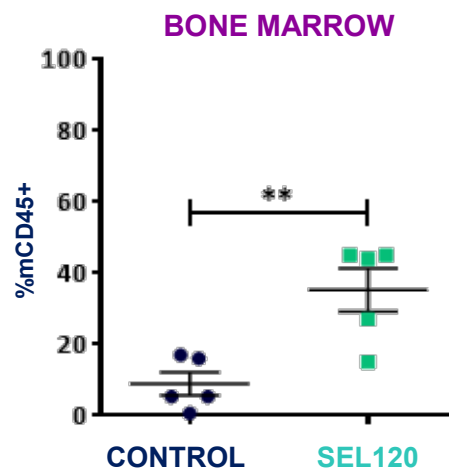
## In CD34+ AML patient-derived xenografts



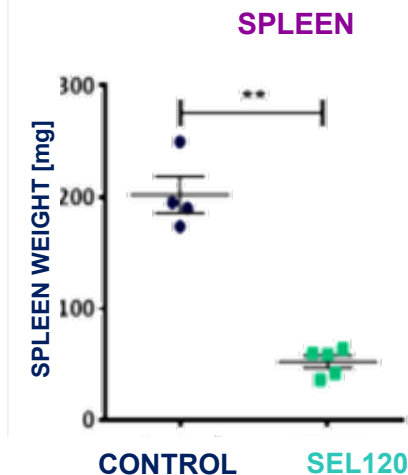
### COMPLETE REGRESSION (PERIPHERAL BLOOD)



### HEMATOLOGIC RECOVERY (BONE MARROW)



### REDUCED SPLENOMEGALY

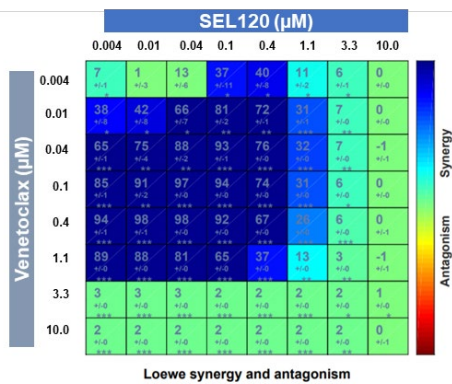
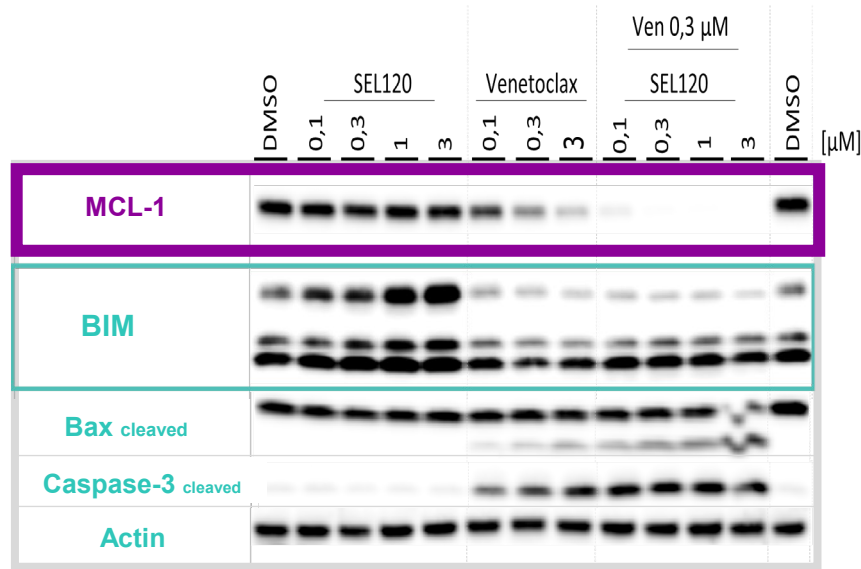


Research performed at:



# SEL120 strongly synergizes with Venetoclax

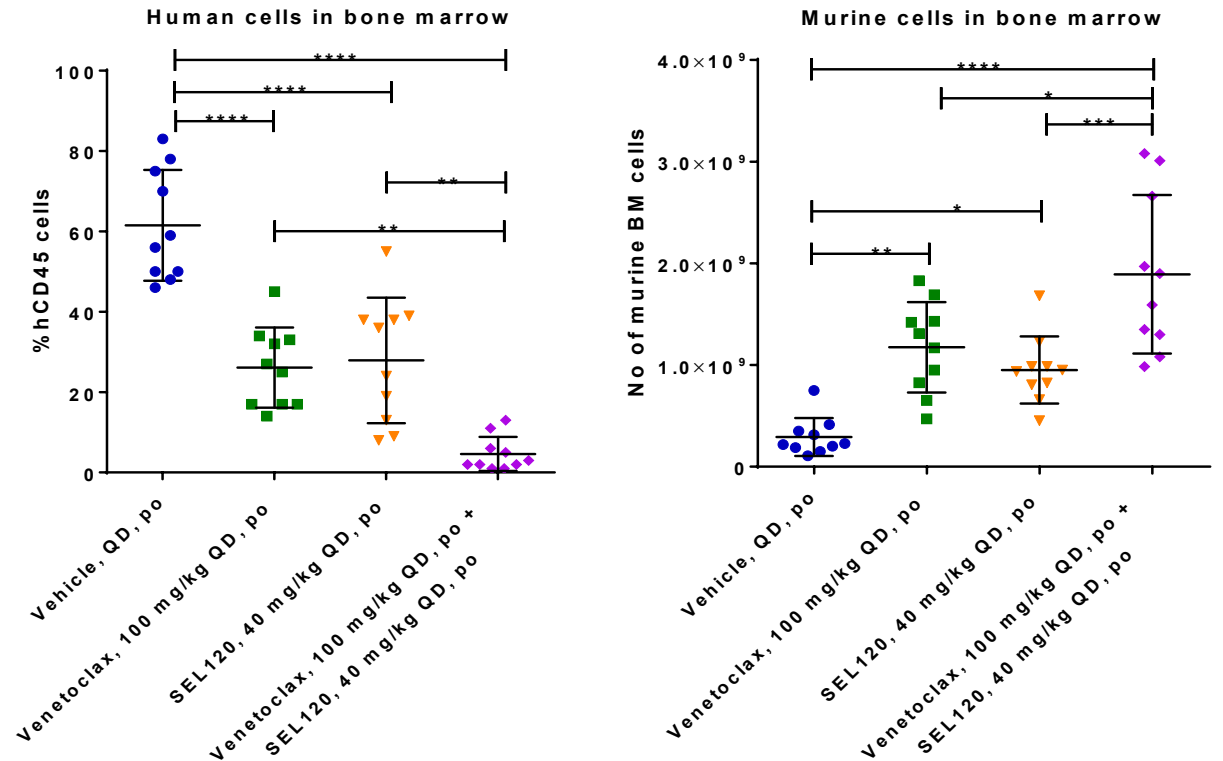
SEL120 potentially addresses treatment resistant disease through safe, indirect MCL-1 downregulation in cancer cells



Compelling potential for SEL120 in combination with Venetoclax



## COMPLETE REGRESSION HEMATOLOGIC RECOVERY (BONE MARROW)



# SEL120: Phase Ib study – first patient dosed in September 2019

## Phase 1b Study of SEL120 in Patients with Acute Myeloid Leukemia or Myelodysplastic Syndrome

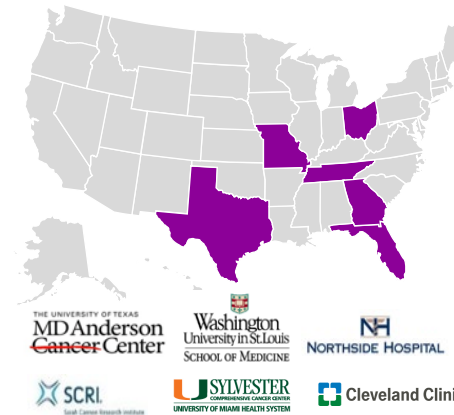
- |   |  |  |   |
|---|--|--|---|
| <b>1</b> <b>STUDY POPULATION:</b> <ul style="list-style-type: none"><li>• Patients with relapsed /refractory AML or high risk MDS</li><li>• No upfront patient stratification</li></ul> | <b>2</b> <b>PRIMARY OBJECTIVE:</b> <ul style="list-style-type: none"><li>• To assess safety and tolerability</li><li>• To determine the recommended dose</li></ul> | <b>3</b> <b>SECONDARY OBJECTIVE:</b> <ul style="list-style-type: none"><li>• To evaluate pharmacokinetics</li><li>• To evaluate the preliminary anti-leukemic activity</li></ul> | <b>4</b> <b>EXPLORATORY OBJECTIVE:</b> <ul style="list-style-type: none"><li>• To evaluate pharmacodynamics</li></ul> |
|---|--|--|---|

### PROJECT MILESTONES

H1 2021	INITIAL RESULTS FROM PHASE Ib
H2 2021	FINAL RESULTS FROM PHASE Ib
H1 2022	PHASE II IN AML/MDS
2022+	INTERIM RESULTS FROM PHASE II

### STATUS AND PLANS

#### 6 ACTIVE SITES IN USA IN 2020



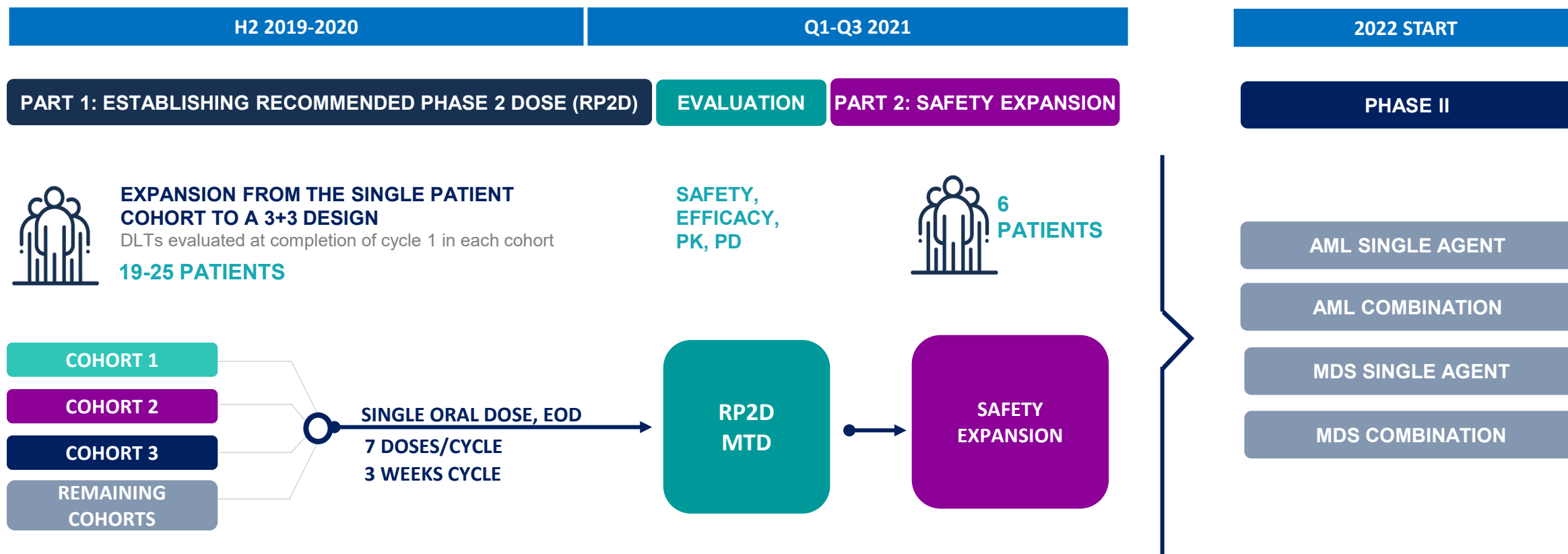
#### 3 SITES EXPANSION IN EUROPE IN 2020/2021

- 2 SITES IN POLAND – CTA APPLICATION FILED IN AUGUST 2020
- 1 SITE IN ANOTHER EU COUNTRY - planned



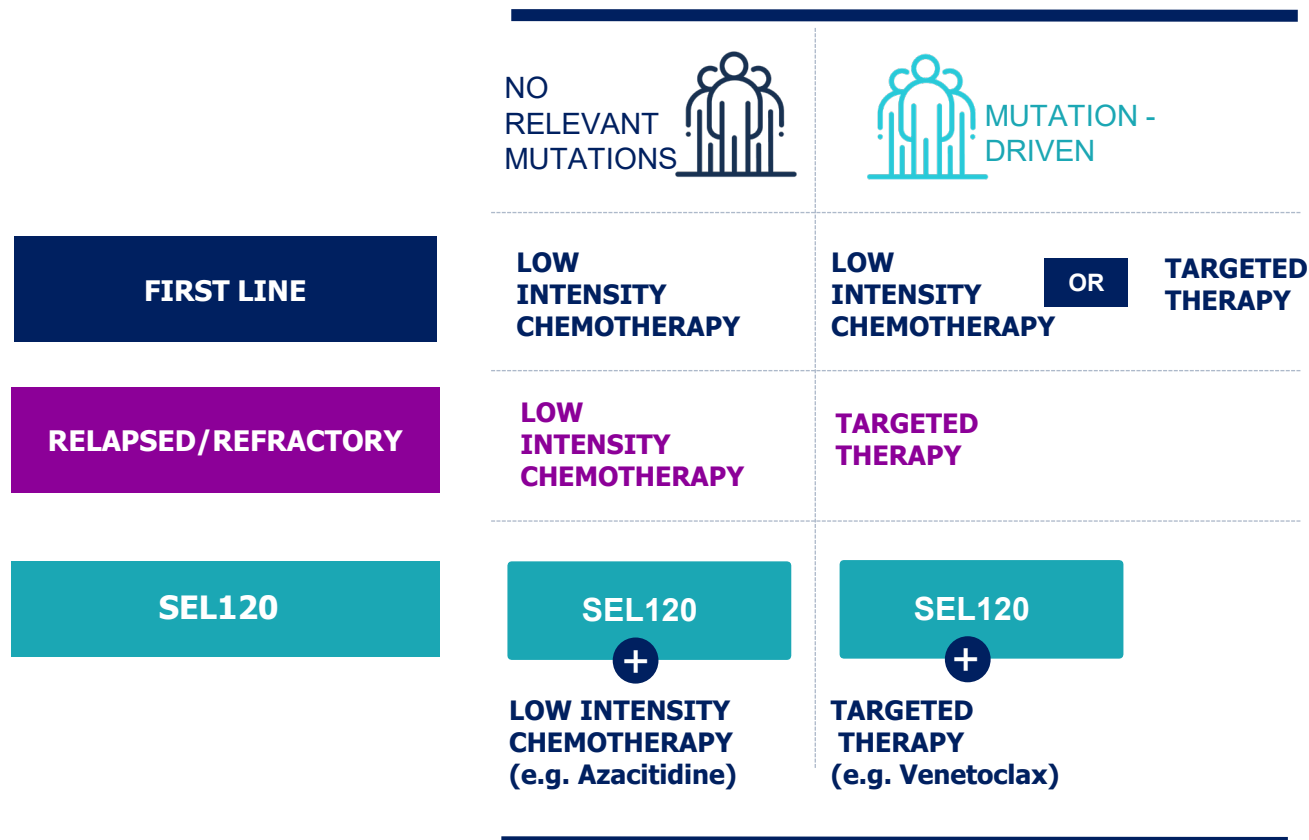


# SEL120 study design in AML/MDS and further plans

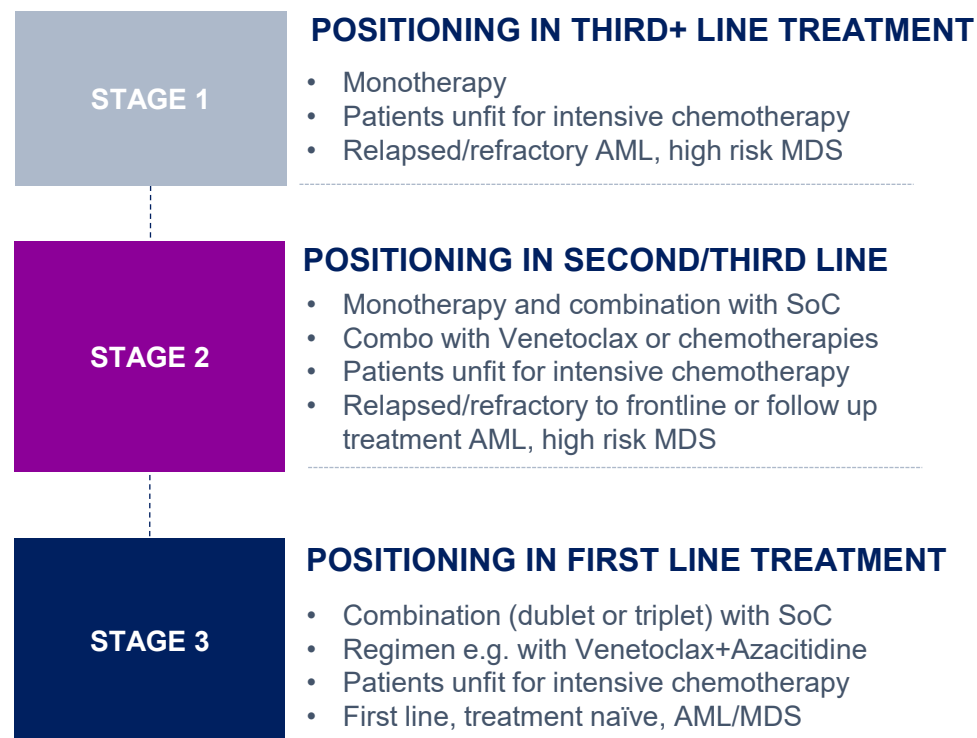


# Positioning of SEL120 in AML treatment regimen and strategic expansion

## AML TREATMENT PROTOCOL UNFIT PATIENTS



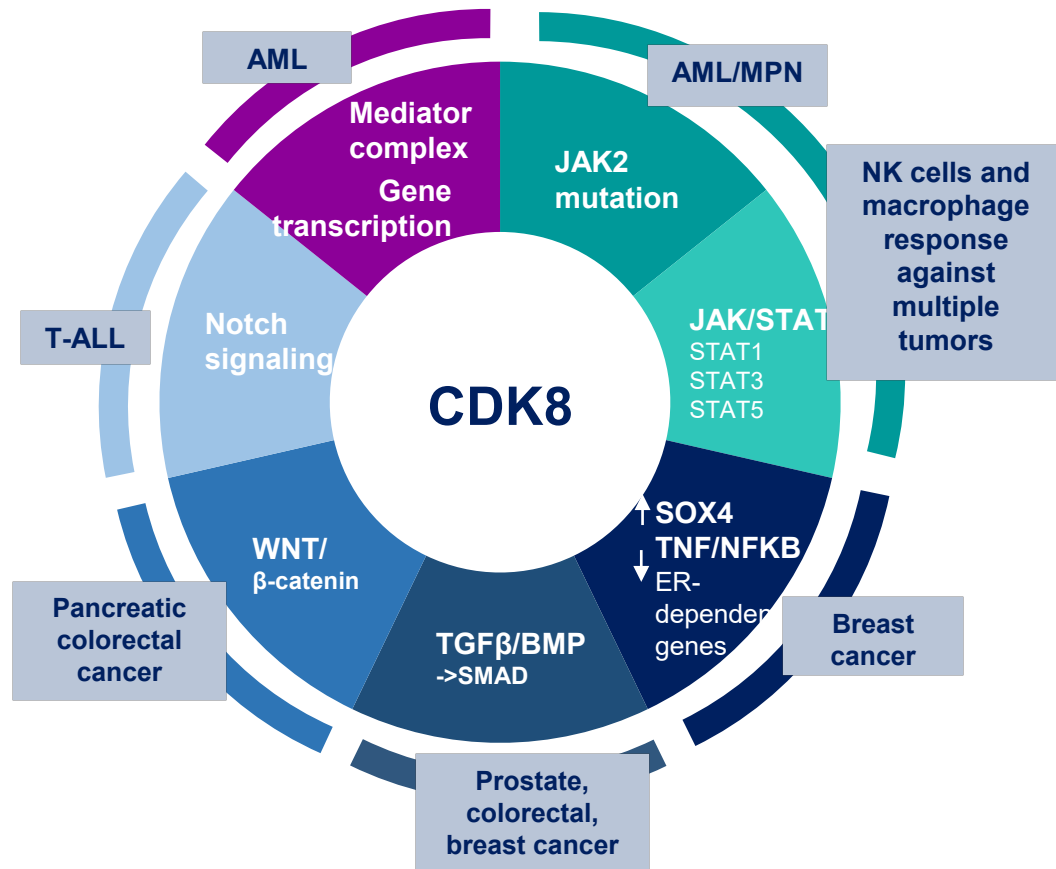
## RYVU STRATEGY FOR DEVELOPMENT OF SEL120 IN AML/MDS



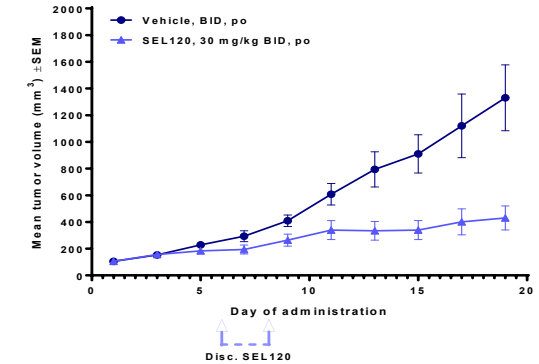
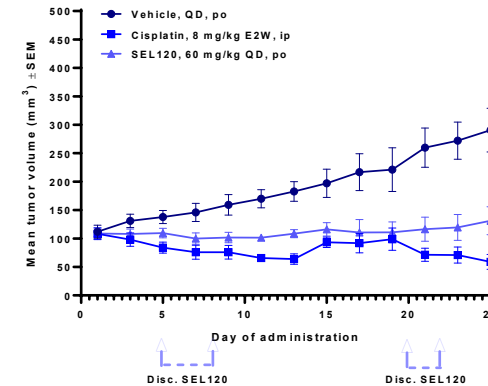
# SEL120 beyond blood cancers: potential role of CDK8/CDK19 in solid tumors

SEL120: expansion plan in multiple solid tumors and other heme malignancies

Phase I start: 2021, preliminary results: 2022



## TNBC BREAST AND COLORECTAL CANCER MODELS



## CDK8/CDK19 inhibitors have potential in multiple solid tumors

- Ryvu confirmed in vitro or in vivo potential in breast, colorectal and prostate cancer

## Unique MoA differentiates CDK8/CDK19 from other CDK family members

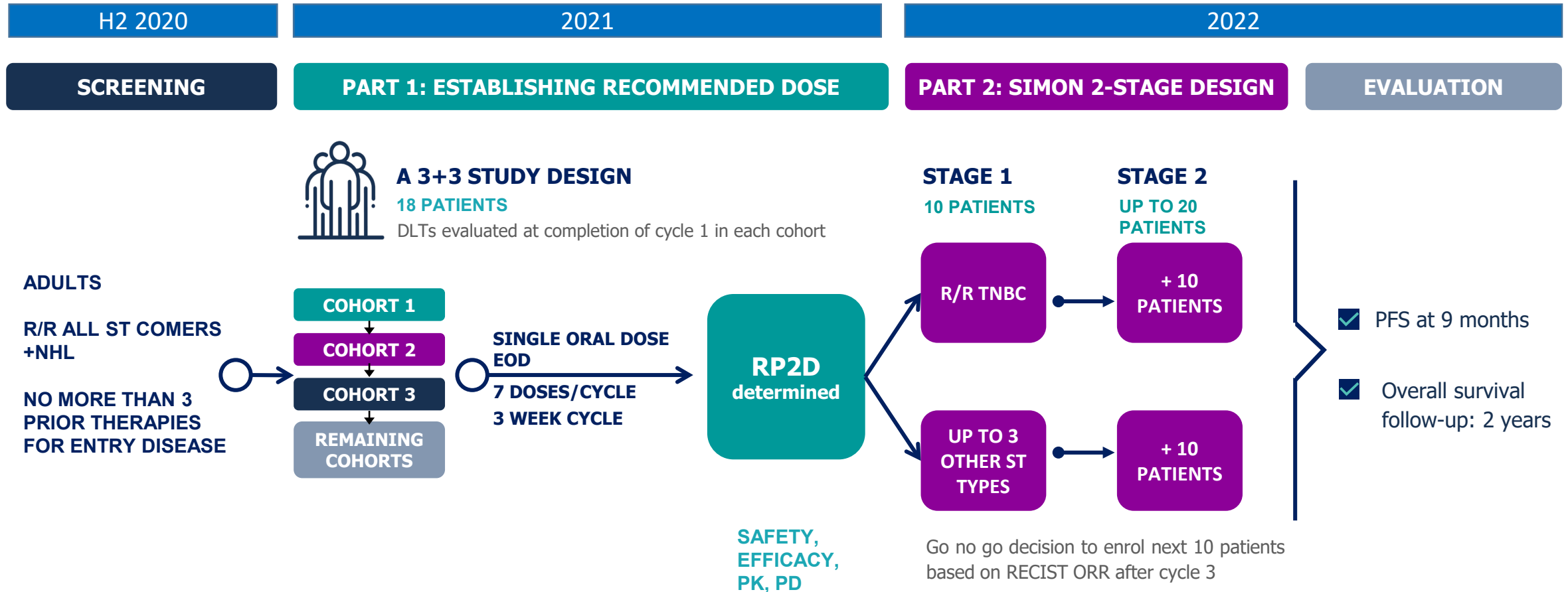
- Do not interfere with cell cycle progression (like CDK1, CDK2, CDK4/6)
- Unique across family mediator of transcriptional reprogramming (induction of silent genes, not physiological transcription) preventing metastasis and drug-resistance
- Different stratification of responders and biomarkers of response
- First generation of CDK8/19 inhibitors unsuccessful due to toxic off-target effects and suboptimal PK/PD profile

## CDK8/19 inhibitors designed to provide targeted and safer treatment options

- Selective targeting cancer cells while sparing healthy ones
- (e.g. CDK4/6, CDK9 affect both normal and cancer cells – possible cytopenias, no bone marrow recovery)
- Selective regulation of transcription in a cancer gene specific context
- (e.g. CDK7/9 involved in general transcriptional programs of normal genes)

# SEL120: expansion plan in multiple solid tumors and other heme malignancies – preliminary plan

Phase I start: 2021, preliminary results: 2022



# SEL24/MEN1703 is a differentiated, first-in-class PIM/FLT3 dual kinase inhibitor

- 1 PIM and FLT3 are oncogenes involved in AML
- 2 Dual targeting creates potential for broader activity, more durable responses than selective FLT3 inhibitors such as gilteritinib
- 3 Potential for treating patients that have relapsed on selective FLT3 inhibitors - PIM kinases are largely responsible for the development of resistance to FLT3 inhibitors

## VALUE THROUGH GLOBAL DEAL WITH



### DEVELOPED BY RYVU UP TO INITIATION OF CLINICAL STUDIES AND OUT-LICENSING

- Partnered globally with Menarini in 2017 TOP 40 global pharma company, based in Italy
- Menarini is fully responsible for clinical development and funds translational research at Ryvu

**\$5.6M**

UPFRONT PAYMENT

**\$104M**

TOTAL POTENTIAL VALUE OF MILESTONES & REFUND OF R&D COSTS

**xx%**

UP TO DOUBLE-DIGIT ROYALTIES FOR RYVU FROM MENARINI

## ONGOING CLINICAL TRIALS

### Study title: A Phase I/II Study of SEL24 in Patients With Acute Myeloid Leukemia

#### SITES



#### INITIAL RESULTS OF THE PHASE I STUDY:

- determined the recommended Phase II dose (RP2D), the PK profile and the single agent activity in R/R or newly diagnosed AML patients
- Study results published at EHA 2020 conference
- Ryvu has received 1.9 M milestone payment for successful completion of Phase I studies

#### PROJECT PROGRESS:

- Cohort expansion at the recommended Phase II dose (RP2D) to confirm the safety profile and assess drug efficacy starting at multiple clinical sites in the U.S. and Europe started
- First Phase II patients in US (July 2020) and Europe (September 2020)



# Initial Phase I data for SEL24/MEN1703 demonstrates compelling single agent efficacy

Acceptable safety data with complete responses observed



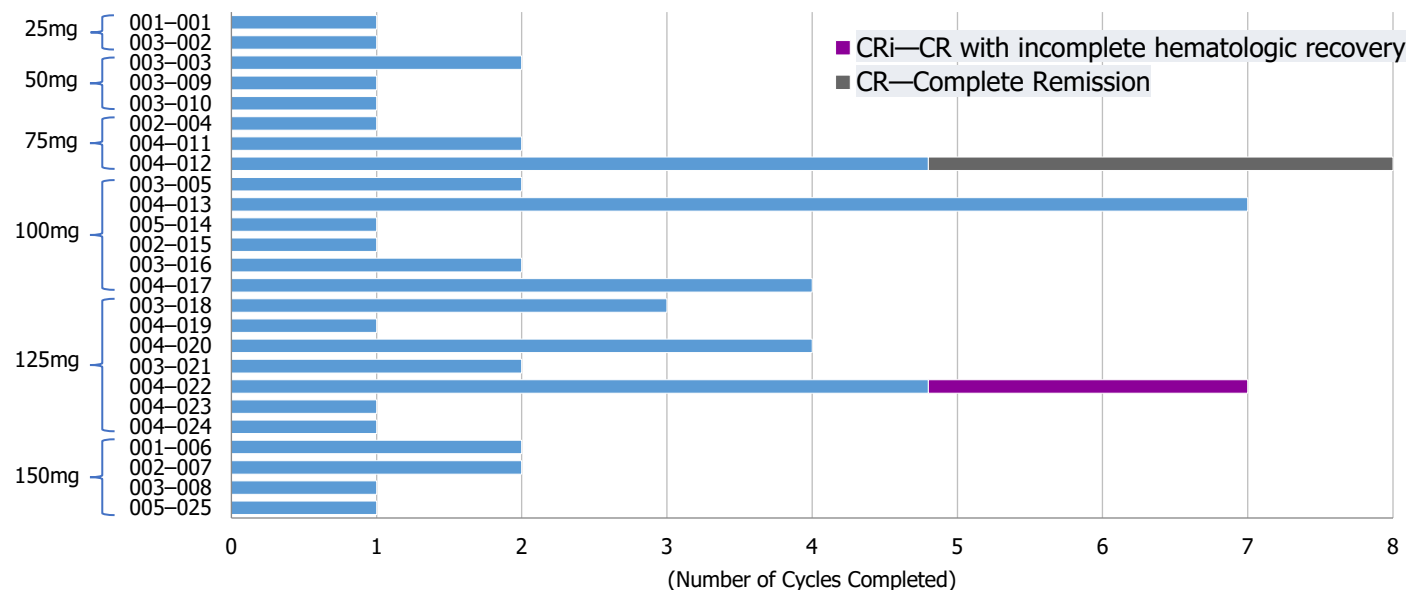
ESTABLISHED RECOMMENDED PHASE II DOSE



EXPANSION FROM THE SINGLE PATIENT COHORT TO A 3+3 DESIGN

DLTs evaluated at completion of cycle 1 in each cohort

## INDIVIDUAL TREATMENT DURATION



**N=25 patients treated**  
**22 patients evaluable**  
(cut-off date 11-Feb-20)

**68 years median age**  
(range 25-84)

### PATIENTS

- 2 newly diagnosed
- 11 primary refractory AML
- 12 relapsed AML

### FREQUENT MUTATIONS

- 5 (20%) FLT3/ITD.
- 4 (16%) DNMT3A
- 4 (16%) IDH1
- 2 (8%) IDH2
- 2 (8%) NMP1

## RESULTS

### Establishment of recommended dose and evaluation of safety profile

- SEL24 has acceptable safety profile up to 125mg
- RD defined at 125mg
- Treatment-Emergent Adverse Events – mostly hematologic or infectious. Transient peak in transaminases was detected by C1 D14 in almost all cohorts (Grade  $\leq 2$  and reversible in the 7 days OFF treatment period up to the RP2D )

### Objective response / single agent efficacy in FLT3 wild-type patients

- Complete remission at 75mg in a 81 y.o. patient, with DNMT3A/IDH2 mutant AML progressed on enasidenib
- Complete response with incomplete hematological recovery at 125mg in a 75 y.o. patient with ASXL1/EZH2 mutant AML relapsed after chemotherapy and decitabine

# Differentiated internally discovered small-molecule drug candidates and new programs

## BEST IN CLASS

## FIRST IN CLASS

### A2A/A2B ANTAGONIST

### STING

#### Current challenges

- ✗ Based on internal data generated at Ryvu the disclosed competitors' antagonists are unable to overcome immunosuppression at high adenosine concentrations (typical to TME)
- ✗ Selective A2A antagonists do not affect antigen presenting cells to prime immune system

- ✗ First generation intratumoral STING agonists provided limited signs of clinical efficacy
- ✗ Limited possibilities to reach multiple metastasis with IT agonists
- ✗ Refractory STING alleles to first generation STING agonists do not cover whole patient population

#### Differentiation

- Dual A2A/A2B antagonists acting on multiple subtypes of immune cells offering more pronounced anti-tumor response
- *In vitro* efficacy in immune cells superior to known A2A/B antagonists

- Direct, small molecule STING agonists
- Active in multiple human STING haplotypes
- Anti-tumor efficacy after systemic administration in preclinical mouse models on par or superior to competitors

#### Competitive agents



#### Next milestone

- Initiate IND enabling studies (2020)
- File IND (2021)

- Initiate IND enabling studies (2020)
- File IND (2021)

### HPK1

### SMARCA2

### OTHER S-L TARGETS

#### Novel Biology Insights

- Unique dual potential to modulate both innate and adaptive anti-cancer immunity
- Synergistic enhancement of T and DC cells function simultaneously making T cells resistant to immunosuppression

- Targets SWI/SNF chromatin remodelling complex
- Implicated in multiple cancers, including NSCLC

- Synthetic lethality arises when simultaneous mutations of gene pairs lead to cell death, whilst individual mutations does not cause a lethal effects

#### Cancer Targets

- Hematopoietic progenitor kinase 1 (HPK1, MAP4K1)
- Important in regulation of the signalling cascade triggered by TCR activation in lymphocytes T
- Potentially multiple tumor types

- Solid tumors with SMARCA4 loss of function mutations

- MTAP deletion cancers
- WRN helicase in MSI high and other tumors
- Multiple other undisclosed targets

#### Competitive agents



#### Next milestone

- Non-GLP toxicology (H1 2021)

- Lead selection (2021)

- Lead selection (>2021)

# Ryvu develops dual A2A/A2B adenosine receptor antagonists

<b>STATUS</b>	<b>IN 2019 RVU330 WAS SELECTED AS A PRECLINICAL CANDIDATE</b> <b>NON-GLP TOX STUDIES ARE ONGOING</b>
<b>KEY DIFFERENTIATION COMPETITIVE ADVANTAGE</b>	<b>Strong potential of best-in-class drug:</b> The only disclosed dual A2A / A2B antagonist exhibiting immunostimulatory activity in vitro at high concentrations of adenosine

## MILESTONES FOR RVU330

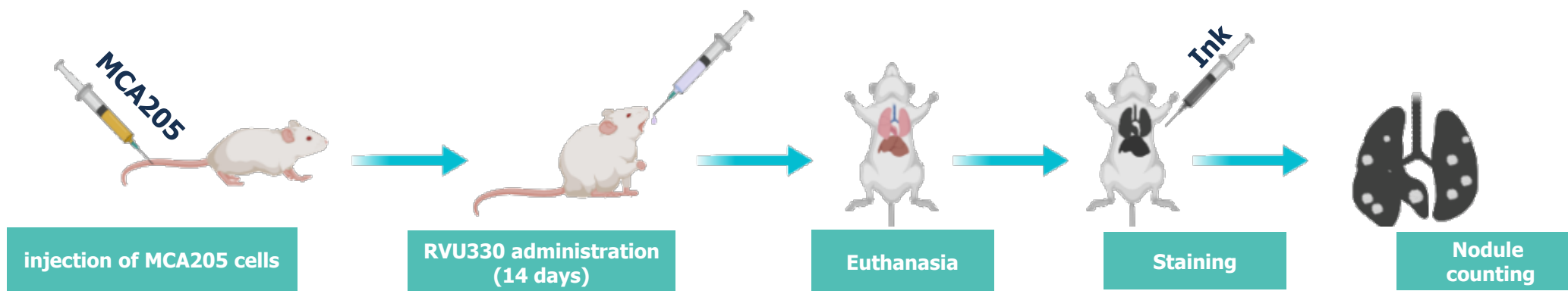
<b>Q3 2020</b>	COMPLETION OF NON-GLP TOX STUDIES
<b>2H 2020</b>	INITIATION OF IND ENABLING STUDIES
<b>2020</b>	PRELIMINARY TRANSLATIONAL STUDIES ALLOWING TO IDENTIFY PATIENTS WITH POTENTIAL BEST TREATMENT BENEFITS
<b>2H 2021</b>	IND FILING
<b>2022+</b>	PHASE I CLINICAL TRIALS

## RYVU APPROACH OF TARGETING BOTH A2A AND A2B RECEPTORS PROVIDES STRONG PRECLINICAL COMPETITIVE ADVANTAGE

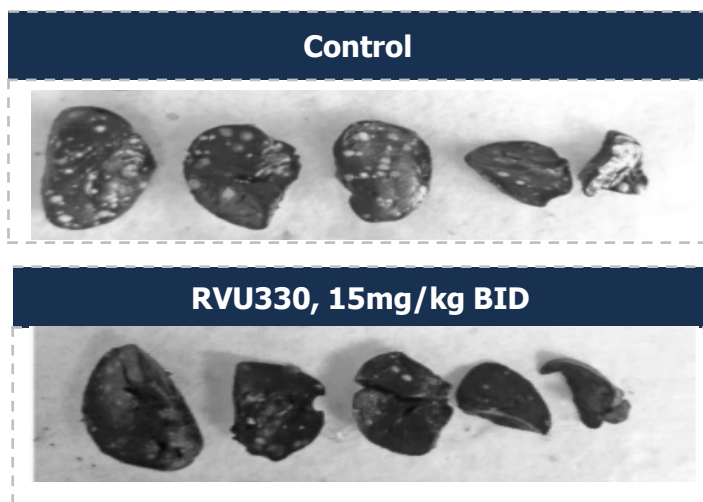
	HIGH ADENOSINE CONCENTRATION				
	DUAL A2A/A2B ANTAGONIST	ACTIVE IN HIGH ADENOSINE CONCENTRATION	ACTIVATION OF T CELLS	ACTIVATION OF DENDRITIC CELLS	pCREB BIOMARKER INHIBITION HUMAN WHOLE BLOOD
<b>RYVU</b>	✓	✓	✓	✓	✓
<b>ARCUS BIOSCIENCES</b>	✓	X	✓	✓	✓
<b>iTeos Therapeutics</b>	X	✓	✓	X	✓
<b>CORVUS PHARMACEUTICALS</b>	X	X	X	X	X
<b>AstraZeneca</b>	X	X	X	X	X
<b>NOVARTIS</b>	X	X	X	X	X

	<b>AstraZeneca</b>	<b>CORVUS PHARMACEUTICALS</b>	<b>Genentech</b> <b>ARCUS BIOSCIENCES</b>	<b>iTeos Therapeutics</b>	<b>RYVU</b>
	<b>AZD4635</b> <b>Astra Zeneca</b>	<b>CPI-444</b> <b>Corvus</b>	<b>AB928</b> <b>Arcus</b>	<b>Example 7</b> <b>iTeos</b>	<b>RVU330</b> <b>Ryvu</b>
<b>TNFα moDCS - EC<sub>50</sub> [nM]</b>	>10 000	>10 000	699 ± 144	> 3 000	13.4 ± 5.1
<b>IL-2 CD4<sup>+</sup> CELLS - EC<sub>50</sub> [nM]</b>	>10 000	>10 000	203 ± 97	4 ± 0.1	0.4 ± 0.2

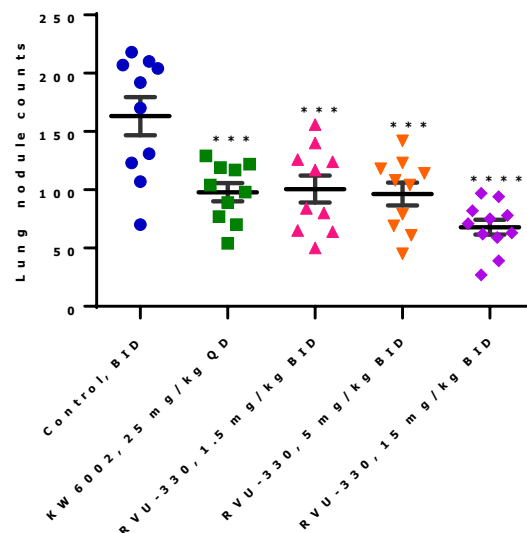
# RVU330 IS EFFICACIOUS AS MONOTHERAPY IN MCA205 SYNGENEIC MODEL



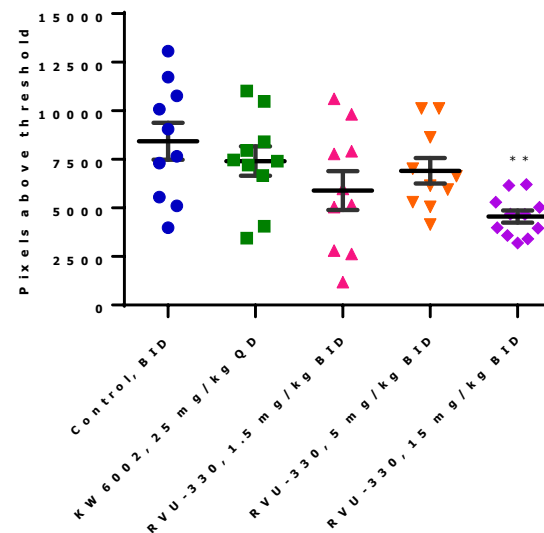
**LUNG LOBES AFTER STAINING  
WITH VISIBLE WHITE MCA205 NODULES**



**NODULE COUNTS IN LUNGS**



**TOTAL AREA OF NODULES  
IMAGE ANALYSIS**



# Small molecule, direct, systemic STING agonists with strong anti-tumor efficacy

## STATUS

**STAGE: SELECTION OF PRELINICAL CANDIDATE**  
STRONG ANTITUMOR EFFICACY AFTER SYSTEMIC ADMINISTRATION  
**OPTIMIZATION AND PROFILING OF COMPOUNDS - POTENTIAL CANDIDATES FOR IND STUDIES**

## KEY DIFFERENTIATION COMPETITIVE ADVANTAGE

Small molecule, direct STING agonists with systemic route of administration and activity on all STING haplotypes (broad patient population may benefit); Potential for antibody drug conjugation (ADC)

## MILESTONES FOR STING AGONISTS

Q1-Q3 2020

PROFILING AND ASSESSMENT OF THE POTENTIAL FOR BEST COMPOUNDS – DRUG CANDIDATES

2020

PRELIMINARY TRANSLATIONAL STUDIES ALLOWING TO IDENTIFY PATIENTS WITH POTENTIAL BEST TREATMENT BENEFITS

1H 2021

INITIATION OF IND STUDIES

2H 2021

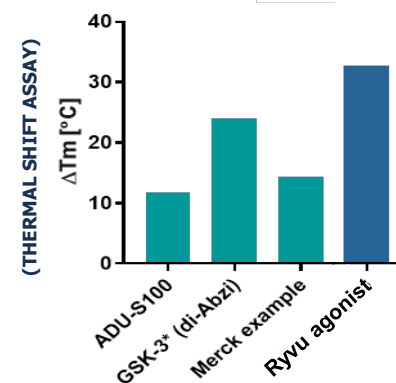
IND FILING

2022+

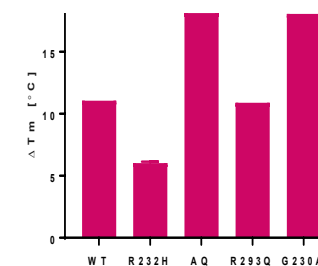
PHASE 1 CLINICAL TRIALS

## STRONG COMPETITIVE ADVANTAGE

A broad patient population carrying multiple STING haplotypes may benefit

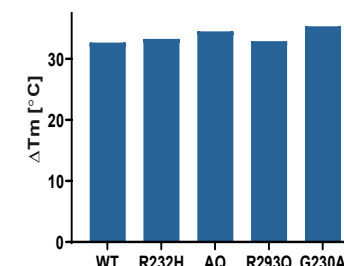


### ADURO COMPOUND



### STING HAPLOTYPES

### RYVU STING AGONIST



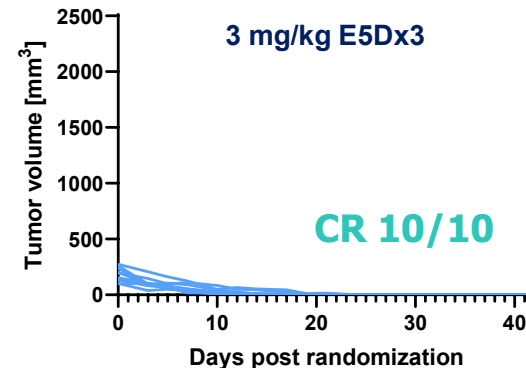
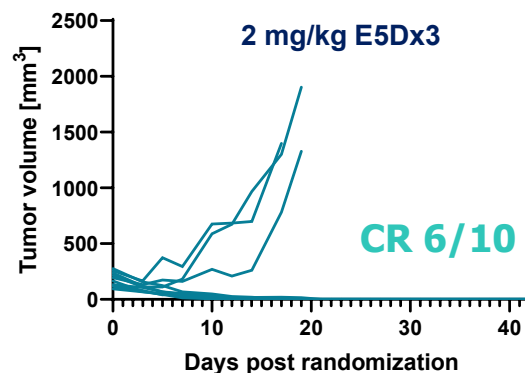
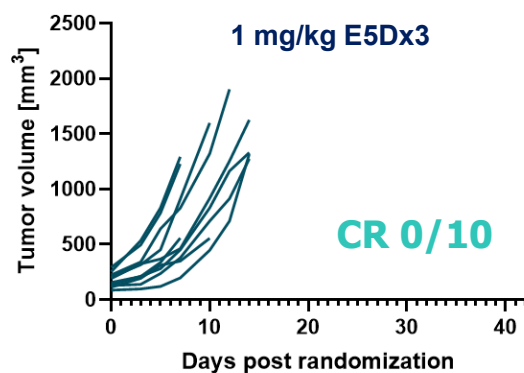
### STING HAPLOTYPES



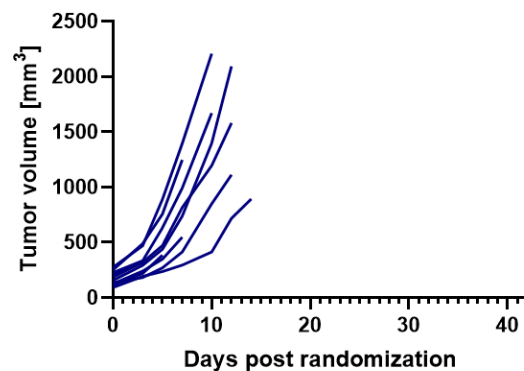
# RVU312-4787 CLEARS TUMORS IN EMT6 MOUSE TUMOR MODEL

## EMT6 MOUSE BREAST CANCER MODEL – INTRAVENOUS ADMINISTRATION

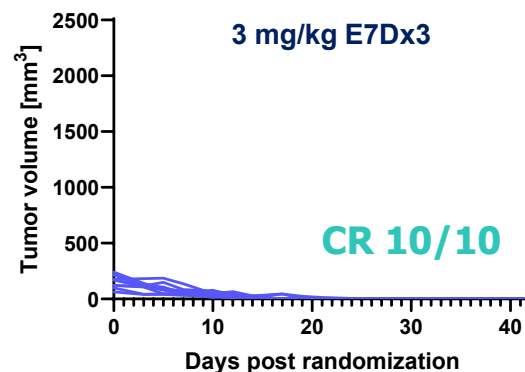
### RVU-24024



### CONTROL GROUP



### RVU-24024



	Complete remissions	Mice alive
EMT6 CONTROL	-	0/10
EMT6 3 mg/kg E5D	10/10	10/10
EMT6 2 mg/kg E5D	6/10	6/10
EMT6 1 mg/kg E5D	0/10	0/10
EMT6 3 mg/kg E7D	10/10	10/10

# Ryvu has selective, potent HPK1 inhibitors with anti-tumor efficacy in mice







## RYVU APPROACH

STATUS	LEAD OPTIMIZATION
APPROACH	<ul style="list-style-type: none"> <li>Small molecule, selective, orally bioavailable inhibitors of HPK1 kinase activity</li> </ul>
CURRENT DIFFERENTIAL FACTORS	<ul style="list-style-type: none"> <li>High selectivity against kinases from TCR pathway</li> <li>Immunostimulatory activity in immunosuppressed, resistant hPBMc and T cells across species</li> </ul>

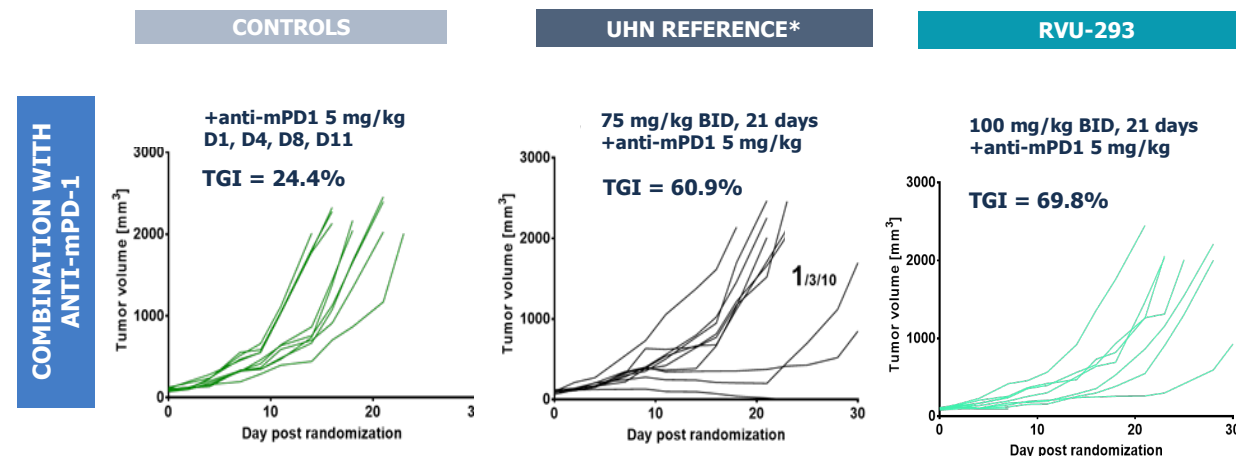
## MILESTONES FOR HPK1 INHIBITOR

2H 2020-2021	LEAD OPTIMIZATION
2021-2022	PRECLINICAL DEVELOPMENT
2022	INITIATION OF IND-ENABLING STUDIES
2022+	IND FILING

## RYVU SMALL MOLECULE HPK1 INHIBITORS SHOW EFFICACY IN MOUSE SYNGENEIC MODEL COMPARABLE TO CLINICAL REFERENCE COMPOUND

								
		RVU-918	RVU-293	UHN	TAKEDA/ARIAD	GENENTECH	INCYTE	BAYER
hHPK1	IC50 [nM]	1.0	1.4	2.7	0.55	4.5	33	2.9
	Ki [nM]	0.1	0.3	0.7	0.1	1.6	20.7	0.4

## EFFICACY IN CT26 (MOUSE MODEL OF COLON CANCER)



\*currently Treadwell Therapeutics, in phase I clinical trials

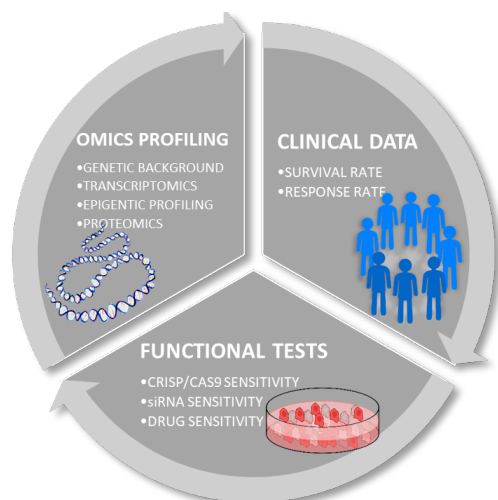
# • Ryvu established proprietary **SYNTHETIC LETHALITY PLATFORM**

Ryvü has a powerful engine to identify and validate novel synthetic lethal targets in oncology

## 1 FIND CONTEX-SPECIFIC NOVEL DRUG TARGETS

### DATA MINING FILTERING AND INTEGRATION

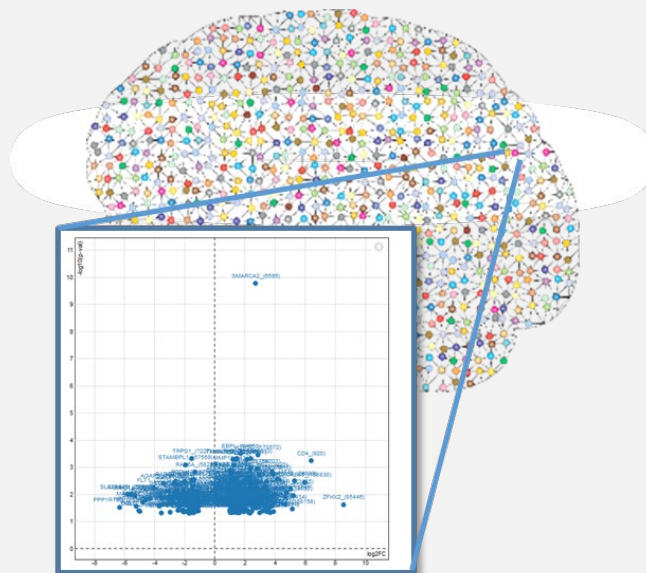
OMICS DATA FOR CELLS AND PATIENTS  
HIGH CONTENT GENE INTERROGATION



## 2 IDENTIFY NOVEL SYNTHETIC LETHAL TARGETS

### NETWORK ANALYSIS CANCER DEPENDENCY MAP

CORRELATION STUDIES USING  
RYVU PROPRIETARY BIOINFORMATIC  
TOOL: MULTIDEP AND SURV-LRT



## 3 NEW SYNTHETIC LETHAL TARGETS IDENTIFIED

### EXPERIMENTAL VALIDATION DRUG SCREENING

ISOGENIC PAIRS  
CELL LINES/PDC PANEL

### SYNTHETIC LETHAL TARGETS – DISCOVERY STAGE

- ✓ **SMARCA2 INHIBITORS: HIT-TO-LEAD**
- ✓ **WRN INHIBITORS: HIT ID**
- ✓ **TARGETING MTAP DELETED CANCERS: HIT ID**
- First in class WRN inhibitors selectively targeting tumors with microsatellite instability (MSI)
- 10-30% of colorectal, endometrial, gastric and ovarian tumors with microsatellite instability

# Broad pipeline addressing emerging targets in oncology

## Ryvu drives value creation from its multiple data readouts

Program/ target name	Indication	Discovery and preclinical	Phase I	Phase II	Partners / Collaborators	Anticipated Milestones		
						2020	2021	2022+
<b>SEL24 / MEN1703 PIM / FLT3</b>	AML					<ul style="list-style-type: none"> <li>✓ Ph. I data</li> <li>✓ Ph. II initiation</li> </ul>	<ul style="list-style-type: none"> <li>• Ph. II interim data</li> </ul>	<ul style="list-style-type: none"> <li>• Ph. II complete</li> </ul>
<b>SEL120 CDK8</b>	AML / MDS					<ul style="list-style-type: none"> <li>• Ph. I dose escalation</li> </ul>	<ul style="list-style-type: none"> <li>• Initial Ph. Ib data</li> <li>• Final Ph. Ib data</li> </ul>	<ul style="list-style-type: none"> <li>• Ph. II initiation</li> <li>• Interim data</li> </ul>
	Solid tumors					<ul style="list-style-type: none"> <li>• Ph. I preparations</li> </ul>	<ul style="list-style-type: none"> <li>• Ph. I top line results</li> </ul>	<ul style="list-style-type: none"> <li>• Ph. II initiation</li> <li>• Interim data</li> </ul>
<b>A2A/A2B</b>	Solid tumors					<ul style="list-style-type: none"> <li>• IND enabling studies</li> </ul>	<ul style="list-style-type: none"> <li>• IND filing</li> </ul>	<ul style="list-style-type: none"> <li>• Ph. I dose escalation</li> </ul>
<b>STING</b>	Solid tumors					<ul style="list-style-type: none"> <li>• IND enabling studies</li> </ul>	<ul style="list-style-type: none"> <li>• IND filing</li> </ul>	<ul style="list-style-type: none"> <li>• Ph. I dose escalation</li> </ul>
<b>HPK1</b>	Solid tumors					<ul style="list-style-type: none"> <li>• Lead optimization</li> </ul>	<ul style="list-style-type: none"> <li>• Non-GLP tox</li> </ul>	<ul style="list-style-type: none"> <li>• IND enabling studies</li> </ul>
<b>SMARCA2</b>	Solid tumors					<ul style="list-style-type: none"> <li>• <i>In vivo</i> PoC</li> </ul>	<ul style="list-style-type: none"> <li>• Lead optimization</li> </ul>	<ul style="list-style-type: none"> <li>• IND enabling studies</li> </ul>
<b>WRN</b>	Solid tumors					<ul style="list-style-type: none"> <li>• Hit ID</li> </ul>	<ul style="list-style-type: none"> <li>• Hit-to-lead</li> </ul>	<ul style="list-style-type: none"> <li>• Lead optimization</li> <li>• IND</li> </ul>
<b>MTAP</b>	Solid tumors					<ul style="list-style-type: none"> <li>• Hit ID</li> </ul>	<ul style="list-style-type: none"> <li>• Hit-to-lead</li> </ul>	<ul style="list-style-type: none"> <li>• Lead optimization</li> <li>• IND</li> </ul>

### 2020



2 Clinical stage assets



1 Human PoC



5+ Early pipeline programs

### 2021



3-4 Clinical stage assets



2 Human PoCs



7+ Early pipeline programs

### 2022+



4+ Clinical stage assets



3+ Human PoCs



10+ Early pipeline programs

# • Ryvu R&D Center for Innovative Drugs

## Move completed in July 2020

2017	August 2018	April 2020	June 2020	July 2020
Preparations for the investment; obtaining a grant from the Ministry of Development	Initiation of construction works	Completion of major construction works	Obtained occupation permits, first laboratories launched	All labs and offices fully operational

Usable area of the Center **> 86,000 sq. ft**

Investment budget **> \$20M**

# workplaces **~300 associates**

Value of the grant from the Polish Ministry of Development **~\$9M**

- Investment initiated in 2017 – before the corporate split from Selvita CRO
- Provides Ryvu with adequate and consolidated research infrastructure
- Has enabled the spin-out of Selvita (CRO) and value creation of >\$100M for Ryvu shareholders
- Ryvu has secured funds for investment from joint pre-split cash balance





# • Covid-19 impact on Ryvu Therapeutics

## Clinical trials:

- Industry risk: Clinical trials in locations impacted by Covid-19 such as the US has been by Covid-19 pandemic in multiple ways (slow or suspended enrollment, difficulties in patient monitoring, delayed DRCs, etc.)
- Clinical studies provide patients suffering from life threatening disorders such as AML and hrMDS with potential new therapeutic options – risk/benefit management policies are mainly dependent on individual site decisions
- Expected negative impact on enrollment – data availability in H1 2021 vs. Q4 2020 originally planned

## Research operations:

- Thanks to the early government intervention Poland has been so far one of the countries least impacted by Covid-19 in Europe. (as of Sept. 28 total of 88,636 cases and 2,447 deaths for 38 million people). Lockdowns were transient and limited in scope.
- Second Covid-19 wave started in Poland in August with up to ~2,000 daily cases in September
- Ryvu introduced the first risk Covid-19 management steps already in February and reduced laboratory operations to critical experiments from for two weeks in March
- Full restart of laboratory activities in April with appropriate additional risk management procedures. Since then Ryvu labs have been operating at ~90% capacity, now using extra space in the new research center to maximize social distancing.
- Outsourcing – limited capacity at some CROs. Key providers less impacted. Risk-management with Asia and European Asian CROs.
- More difficult and slower access to some research materials.

## Other industry specific risks

- Slowed-down business development (pharma demand)
- Market volatility and more difficult access to capital

## Ryvu investment highlights and near term milestones

Developing small molecule therapies which **address high value emerging targets and pathways in oncology**

Diverse pipeline targeting **kinases, synthetic lethality and immuno-oncology**

First-in-class selective **CDK8 inhibitor (SEL120)** with **potential across multiple indications**

Validation from strategic **collaborations** including **partnership with Menarini on SEL24/MEN1703**

Extensive early stage pipeline **delivering near term clinical candidates**

Robust internal drug discovery engine and **partnership options** early stage candidates

**Limited cash burn** thanks to non-dilutive grants and cost-efficient discovery platform, significant resources located in Poland

SEL24/MEN1703  
**Phase 1 PoC data (2020)** ✓

SEL120  
**Phase 1 interim data (H1 2021)**

**1-2 new programs expected to enter the clinic (2021)**

**Additional near-term PC/late discovery targets**

**Partnering deals in the early pipeline** ✓





## Contact data

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