



# CASINVENT

Best-in-class Casein Kinase 1 Inhibitors  
for Treating Resistant Hematological & Solid  
Tumors in Advanced Cancer Patients

**Contact:**

Alexander Scheer, CEO

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# The Challenge:

Rising Resistance Caused by Targeted Treatments:  
Need for Novel Mechanism of Intervention

**Advanced melanoma  
Before treatment**

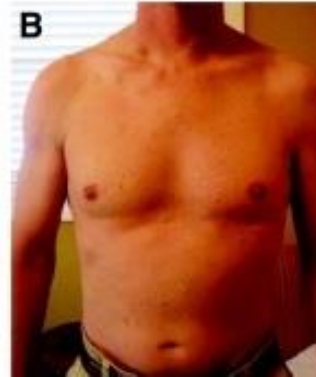


targeted therapy



**Therapy response**

15 weeks post treatment



targeted therapy



**Resistance**

23 weeks post treatment



**No effective second-line therapies** for AML, PDAC, and melanoma

# Resistance Caused by Targeted Treatments on the Rise

PRECEDENCE  
RESEARCH

TARGETED THERAPEUTICS MARKET SIZE, 2020 TO 2030 (USD BILLION)



Across modalities, across diseases (mainly cancer, leukemia, lymphoma, and muscular degeneration)

[Precedence Research Pvt. Ltd.](#)

30% of patients with AML do not respond to **venetoclax/azacytidine** treatment, >50% develop resistance while on treatment  
[10.1038/s41419-024-06810-7](#)

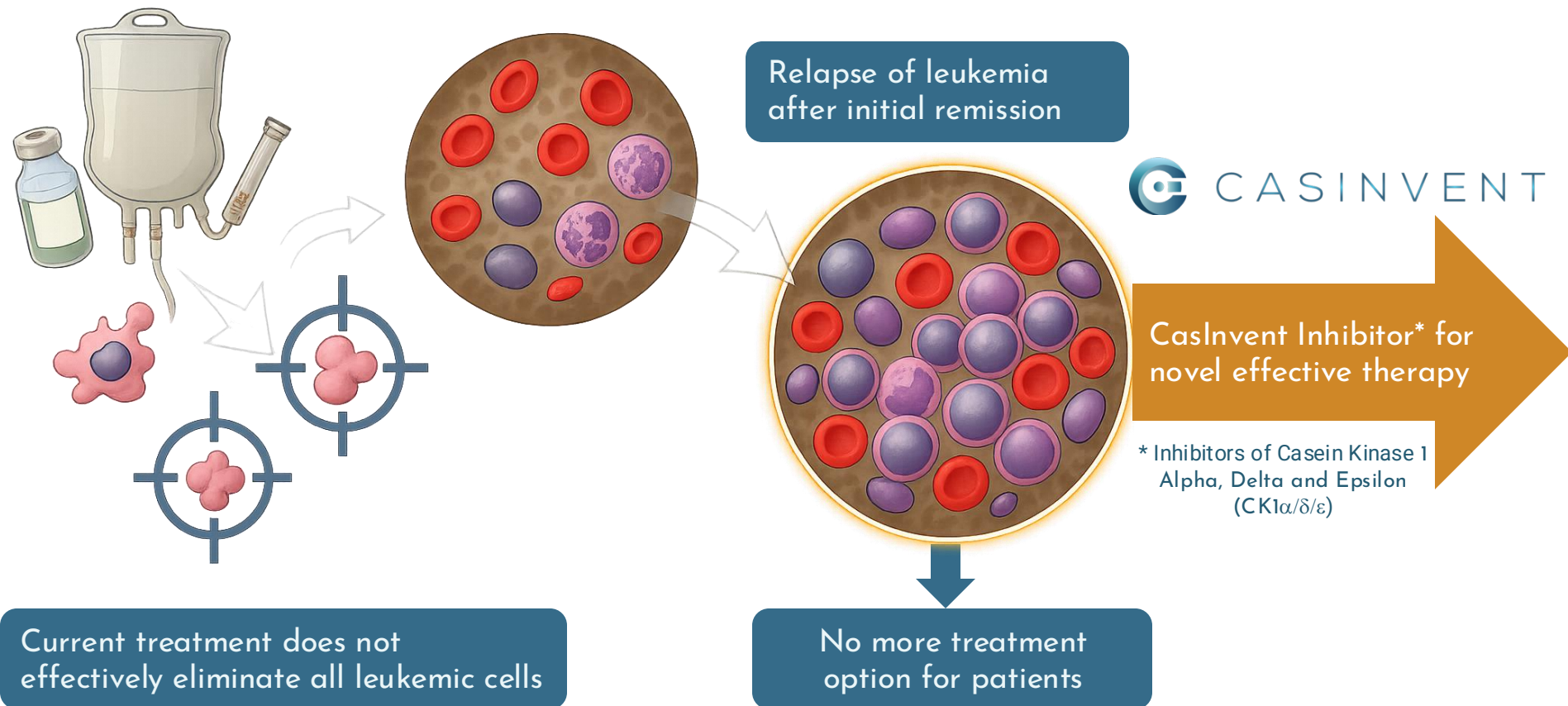
Quick onset of resistance to chemotherapy in 80-90% PDAC patients  
[10.3390/ijms20184504](#)

50% of melanoma patients treated with BRAF inhibitors **dabrafenib** or **vemurafenib** develop disease progression in 6-7 months  
[10.1016/j.ejca.2015.08.022](#)

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**Increasing medical need for treatment-resistant tumors:  
Attractive opportunity for the CasInvent technology**

# Resistance to Targeted Therapy - Exemplified by AML



# Blockbuster Potential

## Targeted Therapy Market Overview

Current Therapy Causing Resistance	Indication	Total Sales in 2032	Min. potential for CK1 inhibitors*	Est. yearly CK1 sales in 2032
venetoclax	AML/CLL	\$2 400 million	>30%	\$800 million
gemcitabine	PDAC	\$1 200 million	>30%	\$400 million
enzalutamide	Prostate	\$5 500 million	>20%	\$1 100 million
BRAF V600E inhibitor	Melanoma	\$5 400 million	>20%	\$1 100 million

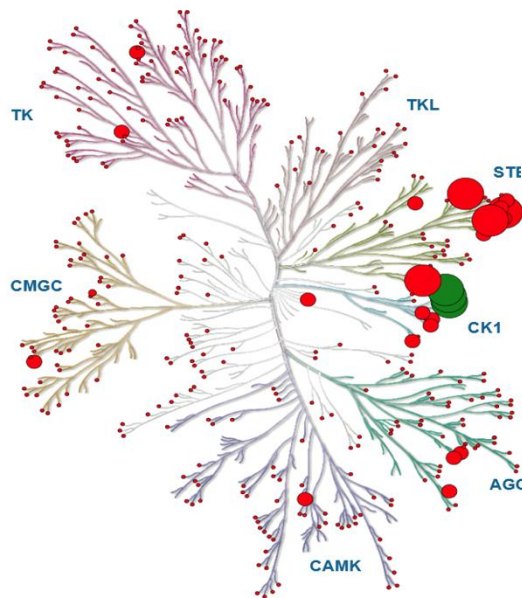
\* Very conservative estimation

**Total Addressable Market > \$ 3 000 million**

# CasInvent's USP: The Most Active and Selective Small-molecule CK1 $\alpha$ / $\delta$ / $\epsilon$ Inhibitors Known to Date

CasInvent candidate **CI2420B** ready for further development to reach Ph1

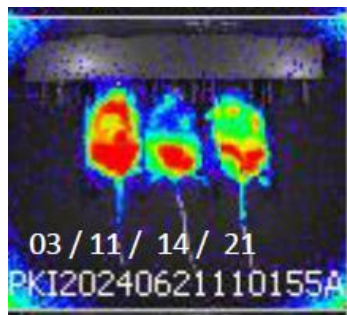
- Only small-molecule inhibitors of all three relevant CK1 $\alpha$ / $\delta$ / $\epsilon$  isoforms
- Simultaneous inhibition of all three isoforms is crucial for anticancer activity
- Simultaneous inhibition is crucial for fighting resistance of targeted therapies



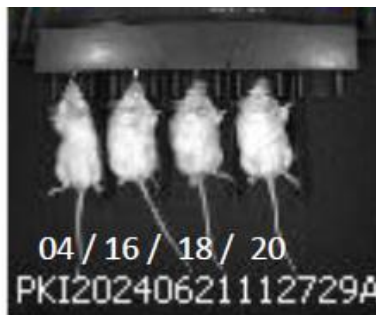
profiled in panel of 400 human kinases,  
radiometric assay at 1  $\mu$ M (Reaction Biology)

# Our Candidate Molecule CI2420B Works in *In Vivo*

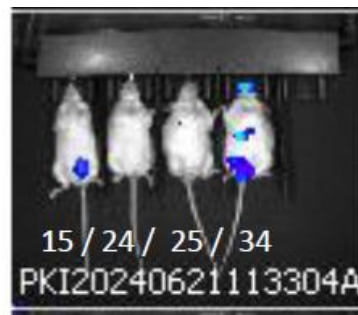
Control



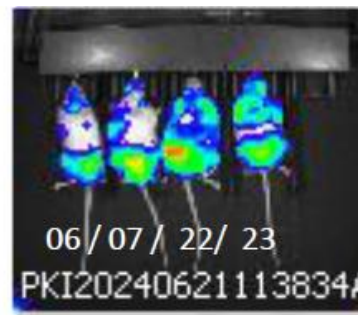
60 mg/kg, s.c.  
CI2420B



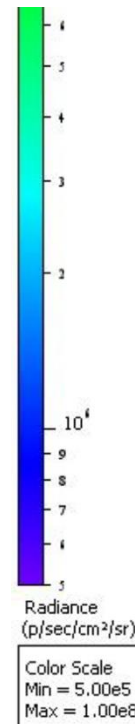
40 mg/kg, s.c.  
CI2420B



20 mg/kg, s.c.  
CI2420B



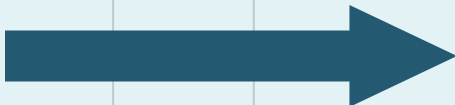
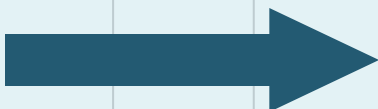
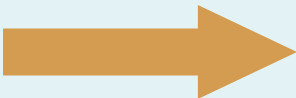


day 21  
bioluminescence  
measurement



**CI2420B significantly delays disease progression in an *in vivo* model for AML**

# CasInvent Pipeline & Priorities

priorities	indication	hit discovery	hit to lead	lead optimization	pre-clinical development	investigational new drug application	clinical trials Phase Ia/Ib	exit
1 <sup>st</sup> liquid tumors	AML/CLL (CI2420B)					2026/27	2027	2029
2 <sup>nd</sup> solid tumors	PDAC					2026/27		
3 <sup>rd</sup> solid tumors	Prostate, Melanoma (CI2420B)					TBA		
4 <sup>nd</sup> solid tumors	CRC (TBD)					TBA		
5 <sup>rd</sup> CNS	Huntington, ALS, PD etc (CI1998)	 to be partnered with CNS companies (first collaboration started)						



# CasInvent Investment Consortium



## i&i Biotech Fund

i&i Biotech Fund is an early-stage life sciences fund managing €53 million.

Possibility to co-finance early-stage clinical trials.



## KHAN Technology Transfer Fund

KHAN-I is an early-stage life sciences venture fund managing €70 million.

Possibility to co-finance early-stage clinical trials.



## Holecek Family Foundation

The Foundation supports organizations with knowledge, experience and vision in areas that the Foundation considers important for the development of our society.

Possibility to co-finance clinical trials.



## JIC

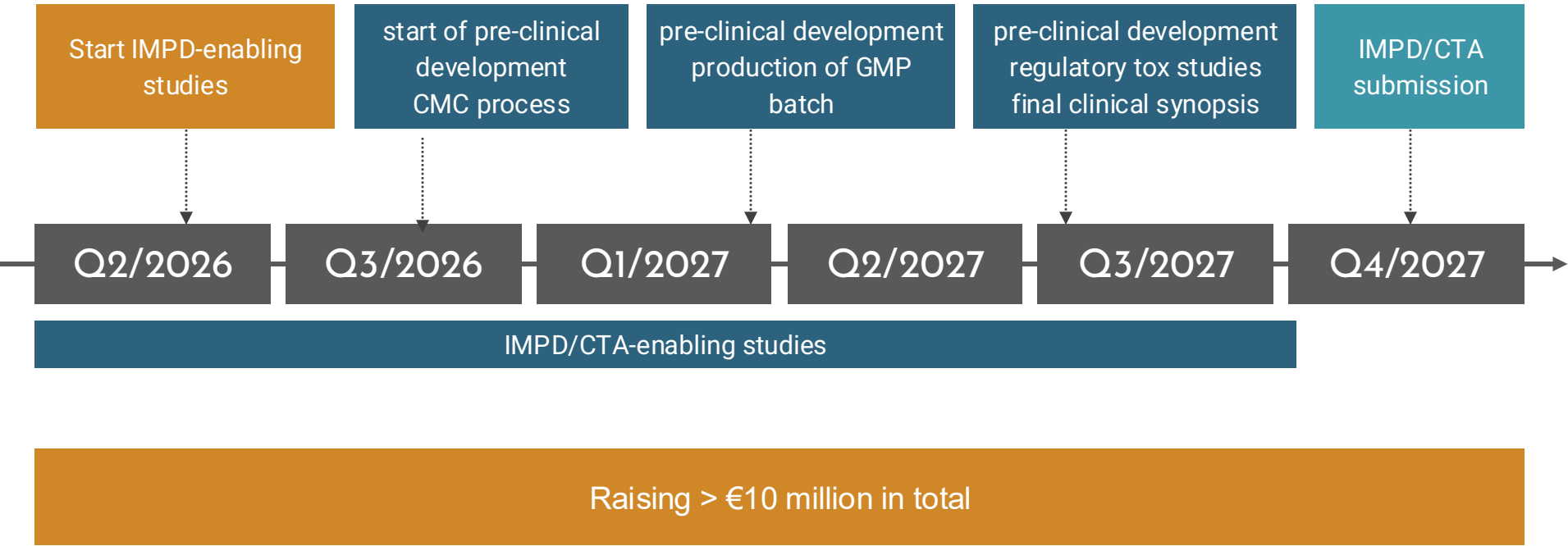
The Foundation supports organizations with knowledge, experience and vision in areas that the Foundation considers important for the development of our society.

Possibility to co-finance clinical trials.

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**The current investors are committed to participate in the planned Series A investment**

# Road Map to Phase 1



# CasInvent Team



**Alexander Scheer**

CEO/CSO

Ex-Merck Serono, Pierre Fabre, Erytech, Aelin Therapeutics  
Pharma drug development veteran, 25+ years of experience



**Vojtěch Helikar**

CFO/COO

Ex-CzechInvest, CzechTrade, 10+ years hands-on  
experience in international business.



**Kamil Paruch**

Head of Chemistry

Ph.D. at **Columbia University** USA; Associate Professor at  
**Masaryk University**; 20+ years of experience in kinase drug  
discovery



**Tomasz Radaszkiewicz**

Head of Biology

Senior Researcher at **Masaryk University**; author of >25  
publications



**Natalie Novac**

Non-executive Director of BD

Investor Director at Delin Ventures,  
Ex-Eli Lilly, Merck KGaA



**Tomáš Prát**

Head of Alliance Management

Ex-GeneProof and Contipro; author of 7 publications (e.g.  
*Science*) and patent

# CasInvent Advisory Board



**Vítězslav Bryja**

Masaryk University

Professor, group leader at **Masaryk University**; co-inventor of the  
CasInvent technology; author of >120 scientific publications



**David Virshup**

National University of SingaporeBrno

Director of the Programme in Cancer and Stem Cell Biology  
(CSCB) and Professor at **Duke-NUS Medical School**



**Uwe Knippschild**

University of Ulm

Professor, group leader at the **University of Ulm**; CK1  
expert in interactions of CK1 and other signalling pathways



**Jackson B. Gibbs**

JBG Pharma Consulting

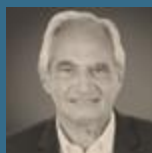
Drug hunter specializing on Oncology and Pharmacology R&D;  
author >120 research articles, book chapters, and review articles



**Peter Nussbaumer**

Lead Discovery Center

Medicinal chemistry expert; Managing Director of LDC and a  
partner at **KHAN Technology Transfer Fund I**



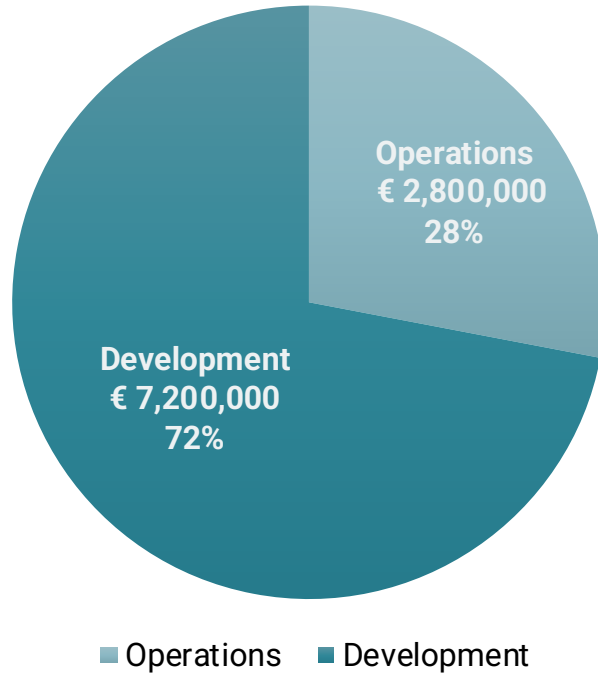
**Jean-Pierre Bizzari**

Former Senior VP at Celgene

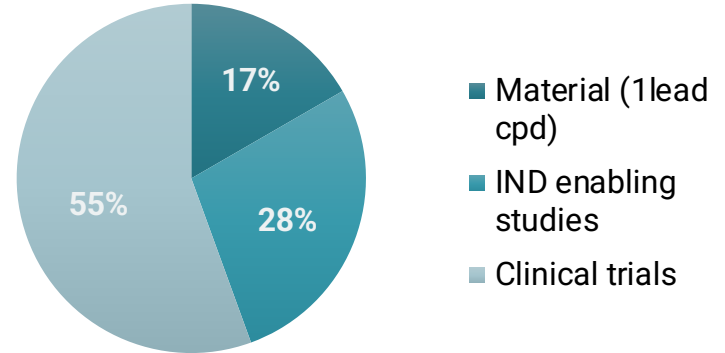
renowned oncologist with extensive experience in clinical  
practice in global pharmaceutical industry

# Use of Funds 2026 - 2029

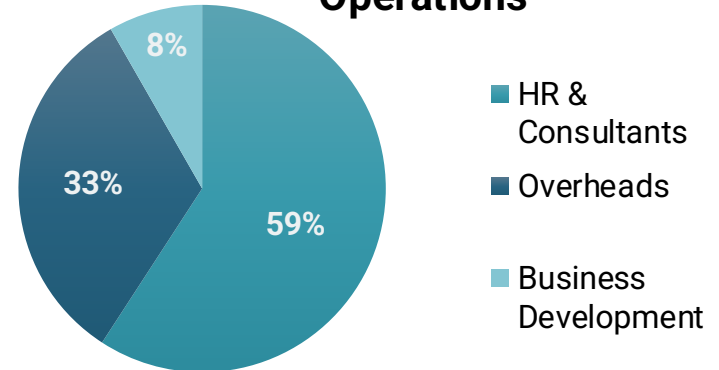
## Overview



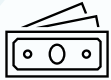
## Development



## Operations



# CasInvent Achievements



>€5.5 million secured since 2020 (equity + national & international grants)



Eurostars grant €4 million (PANC CKI, 2024) – #1 ranking in CZ, CH, FR (score 51/54) (please see slide 32)



TAČR SIGMA grant – 9<sup>th</sup> public competition winner (2025)



Transfera Technology Days – 1<sup>st</sup> place in nationwide competition (2024)



International visibility – part of the Czech Presidential delegation at the Pharma & Biotech Forum, Switzerland (2024)

# Investment Opportunity

Seeking > €10 million to advance a high-potential oncology asset toward blockbuster status



Opportunity: Flagship biotech in the Czech republic  
Market opportunity - few competitors, high unmet medical need  
Planned exit by 2029  
Strong ROI potential



Exclusive global IP licensed (Masaryk University, Brno, Czech Republic)  
Decades of research expertise  
Proven team - science & business



Unique triple CK1 inhibitor drug candidate with strong preclinical data  
Milestone-based investment with solid fundamentals

# CasInvent Pharma Summary



Portfolio of best-in-class CK1 inhibitors with superb potency and selectivity, ready for successful conclusion of pre-clinical development in 2025



Commercially attractive indications in oncology, including tumors resistant to the state-of-the-art treatment, targeted by new mode of action - efficient inhibition of CK1



Exclusively licensed IP coming from internationally competitive know-how and decades of research at Masaryk University in Brno



# CASINVENT

## Supplementary Data

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# CasInvent Value After Phase I: Comparable Recent Exit Deals



## Pharmavant 7 Enters into Licensing Agreement with Eisai (2021)

Small molecules targeting splicing factor 3B subunit 1 against MDS, AML and other leukemias

Single asset, Phase I

Deal value: \$393 million



## Merck Acquires Imago BioSciences (2023)

Small molecules targeting lysine specific demethylase 1 (LSD-1 or KDM1A)

Phase II in AML and other indications (+ 1 asset in preclinical and 1 asset in discovery phase)

Deal value: \$1,350 million



## Genentech to Acquire Regor's Portfolio of Next-Gen CDK Inhibitors (2024)

Small-molecule CDK inhibitors for oncology (2 programs in Phase I; not AML-specific)

Multi-asset portfolio, early clinical stage

Deal value: \$850 million upfront + undisclosed milestones



## Kyowa Kirin Enters Global Strategic Collaboration with Kura Oncology (2024)

Small-molecule menin inhibitor (ziftomenib) targeting NPM1-mutant and KMT2A-rearranged AML

Single asset, registration-directed Phase II

Deal value: \$330 million upfront + up to \$1 200 million milestones

# Competitive Landscape

Company	Indication	Target	Development Phase	Type
CasInvent Pharma	oncology (AML, solid tumors)	<b>CK1α, δ, ε</b>	preclinical	inhibitor
Edgewood Oncology (BTX-A51)	oncology (MDS, AML)	unselective CK1α	clinical Phase I	inhibitor
HealZentx	PTCL	PI3Kδ, CK1ε	Phase III	Inhibitor
Bristol-Myers Squibb	hematologic tumors	CK1α	Phase I Terminated	degrader
GluBio Therapeutics	AML, MDS,	CK1α	Phase I	degrader
The Scripps Research Institute	oncology	CK1δ, ε	preclinical	inhibitor
Pin Therapeutics	oncology	CK1α	IND approval	molecular glue
Stemsynergy Therapeutics	oncology	CK1α	preclinical	activator
Ankar Pharma	ALS, AD	NA	preclinical	inhibitor
Neumora Therapeutics	AD	CK1δ	preclinical	inhibitor
Alchemedicine	circadian rhythm disorders	CK1δ, ε	preclinical	inhibitor
NB Health Laboratory	CNS	CK1δ, ε	preclinical	inhibitor
Intra-Cellular Therapies	autism	NA	preclinical	inhibitor

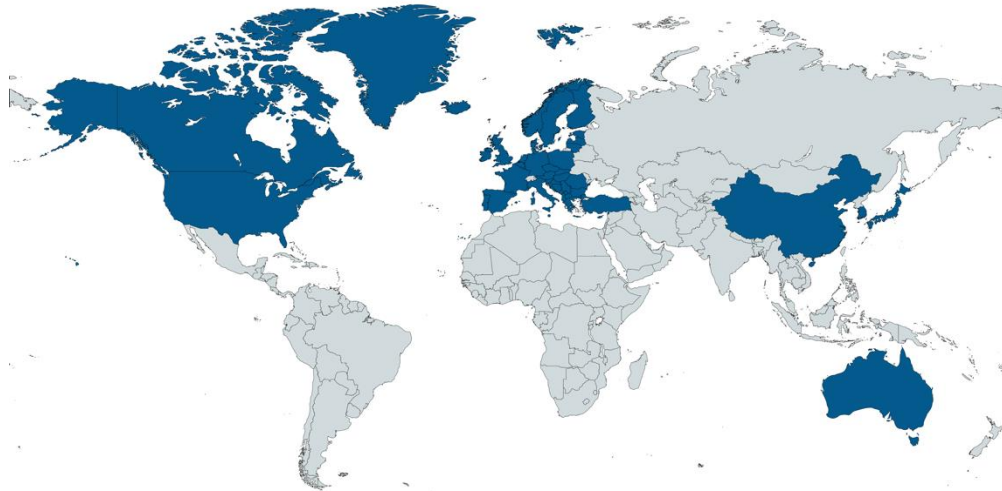
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**CasInvent is the only company with triple inhibitor of CK1**

# Strong Global IP Protection

Protected by the 2019 patent WO2019185631, exclusively licensed, freedom to operate (FTO).

Key Markets:

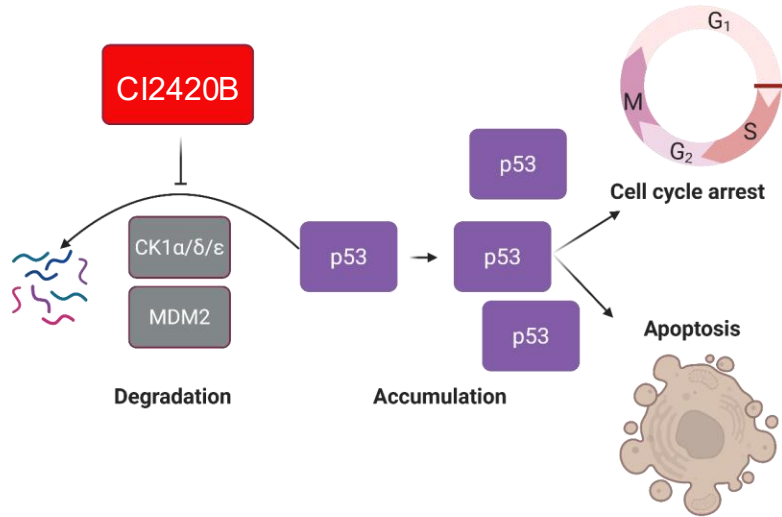


IP transfer from Masaryk University in progress,  
Two novel patent applications (lead compound, chemical synthesis) in progress

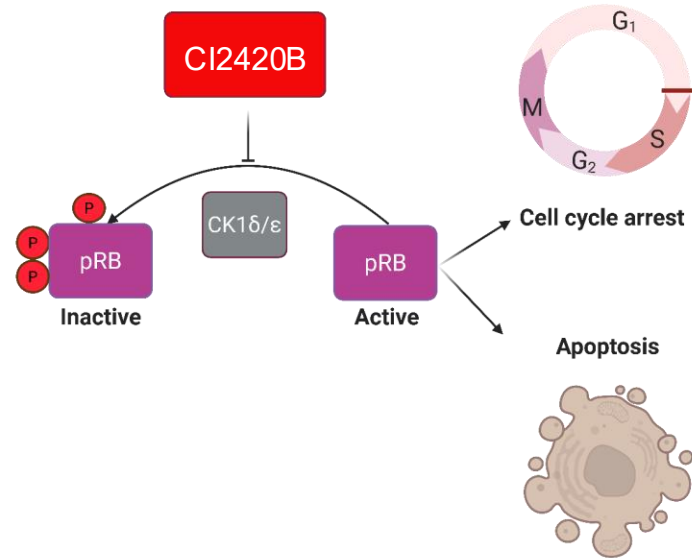
# How Our Molecule Works:

## CI2420B Targets Crucial Pathways in Resistant Cells

a. p53 accumulation:



b. pRB activation (p53-independent):



c. and other pro-survival signaling pathways

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**Simultaneous inhibition of three disease-relevant CK1α/δ/ε isoforms leads to superior potency in resistant cells**



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