LLS TAP

THERAPY ACCELERATION PROGRAM

LORE GRUENBAUM, VP, TAP
JAVEED FROOZAN, VP, BD & SA

October 2021

BEATING CANCER IS IN OUR BLOOD.

LEUKEMIA & LYMPHOMA SOCIETY®

LLS MISSION AND PURPOSE

The mission of The Leukemia & Lymphoma Society (LLS) is to cure leukemia, lymphoma, Hodgkin's disease and myeloma, and improve the quality of life of patients and their families.

We fund **RESEARCH** to advance lifesaving treatments.

We provide patients, survivors, caregivers, families and healthcare professionals with hope, guidance, **EDUCATION** and **SUPPORT**.

We drive **ADVOCACY** for policies that protect patient access to lifesaving treatment.

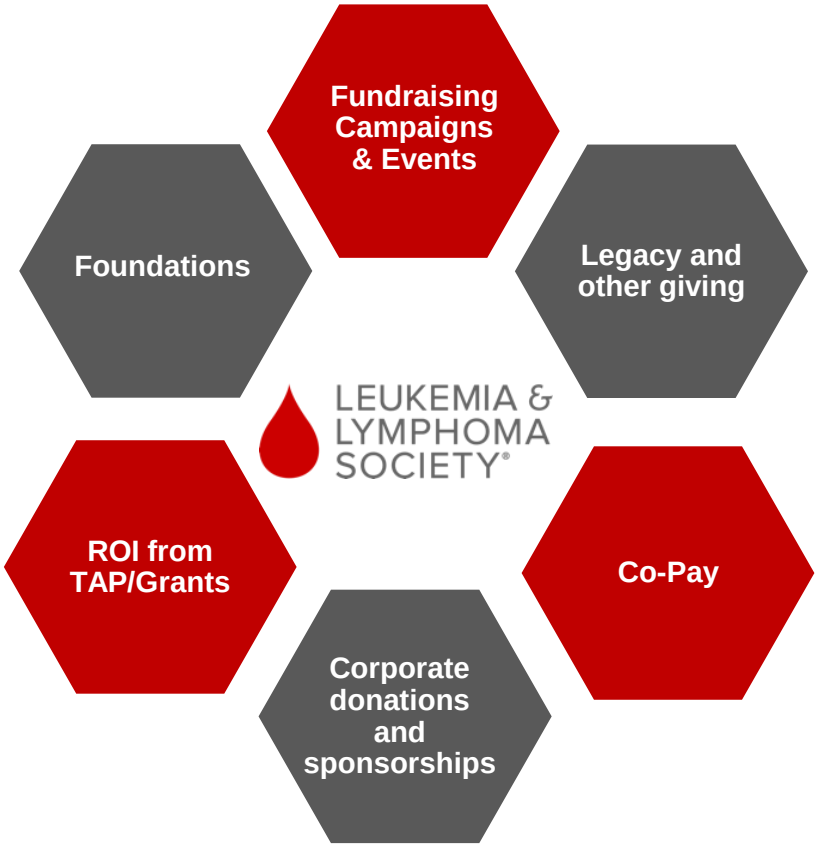
Approximately every **3 minutes** someone in the U.S. is diagnosed with blood cancer

Nearly **1.4 million** people in the U.S. are living with or in remission from leukemia, lymphoma or myeloma

About **30 percent** of blood cancer patients still do not survive five years after diagnosis

About **40 percent** of all pediatric cancers are blood cancers

LLS MISSION INVESTMENT IS SUPPORTED BY MULTIPLE REVENUE SOURCES

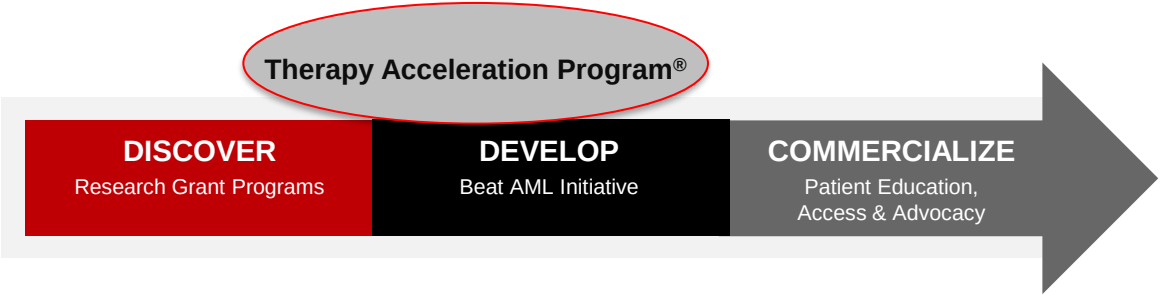


OUR IMPACT

- Invested nearly $1.3 billion in research and development worldwide since founded in 1949
- Helped advance 52 of 60 FDA approved blood cancer drugs
- Supported >93,000 patients since inception
- Responded to 20,000 inquiries in 2019

LLS GLOBAL RESEARCH AND DEVELOPMENT FOCUS

Research and development programs and clinical trials using LLS resources



Academic Grants

~$50 Million/yr over past 20 years at over 80 institutions with >4,000 projects total

PedAL

Global precision medicine trial focused on pediatric relapsed leukemia

Therapy Acceleration Program®

~$10 Million/yr venture philanthropy initiative funding >70 portfolio projects since 2007

Beat AML® Master Clinical Trial

LLS Sponsored precision medicine trial

LLS THERAPY ACCELERATION PROGRAM (TAP)

Venture philanthropy funding to support novel therapies

Established in 2007

>$125 Million invested to date

- Biotech: >$90 Million
- Institutions: ~$35 Million
- >70 financings of companies and assets
- >20 assets currently in active development

3 FDA-Approved Therapies

- Vyxeos (AML)
- Yescarta (DLBCL, tFL, PMBCL)
- Elzonris (BPDCN)

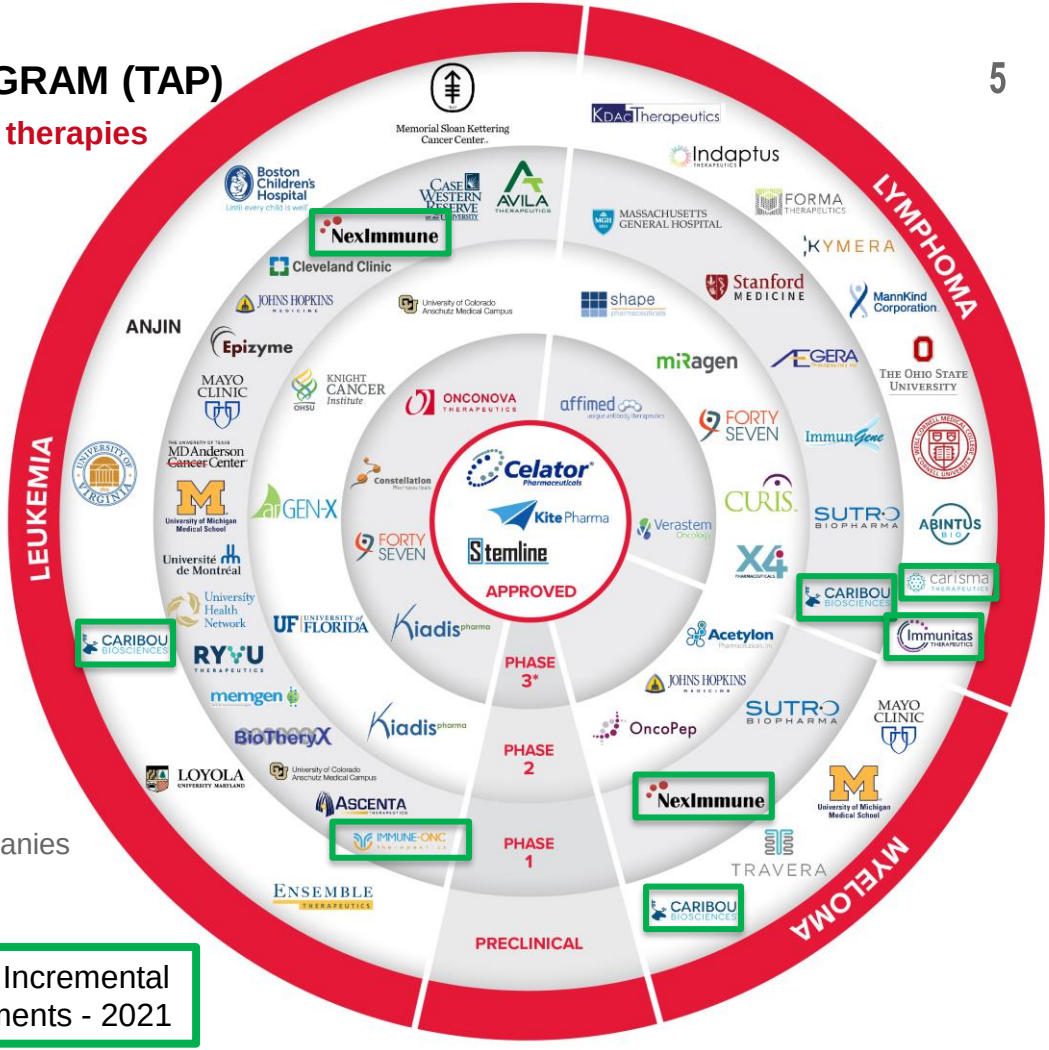
ROI Focus:

- FDA Approvals
- Assets in clinical development
- Strategic transactions & financing for portfolio companies
- Financial ROI to LLS

www.LLS.org/therapy-acceleration-program

BEATING CANCER IS IN OUR BLOOD.

New + Incremental Investments - 2021



*Includes Phase 2 registration-enabling studies

LLS TAP SCIENTIFIC & BUSINESS LEADERSHIP

Lore Gruenbaum, PhD
VP, TAP

- 20 years drug discovery & clinical development
- VP, Gotham Therapeutics; Exec Dir, Applied Biomath
- Biomarker Head, Virology, Roche; Group Leader, BI
- Yale postdoctoral work, principal investigator and collaborator on several SBIR grants

Lee Greenberger, PhD
SVP, Chief Scientific Officer

- 20 years big pharma and biotech
- Overight responsibility for >$50 M annual research budget
- Advanced > 10 oncology therapeutics into the clinic
- Search & due diligence experience with big pharma

Javeed Froozan, MBA, BS
VP, Business Development

- 25 years biopharma and health technology value creation
- Sr. Dir, Emergent BioSolutions, Multiple start-ups/exits, 2 IPOs
- Business lead on EBS-Trubion M&A transaction. Alliance Manager for Pfizer relationship
- Strategic Investments, M&A, Business Development, Asset Management, and Economic Development

Blaine Robinson, PhD
Executive Director, TAP

- 15 years research & clinical development in blood cancer
- Search & Diligence on 100+ projects
- Scientific lead for over 20 TAP projects including Constellation, Kymera, Ryvu & most recently Abintus, Caribou & Immune-Onc
- Pediatric leukemia researcher, Children's Hospital of Philadelphia

Jun Xu, PhD
Executive Director – TAP Lead

- 20 years oncology/ immunology drug discovery/development
- Search & Diligence on 100+ projects
- Scientific lead for over 20 TAP projects including multiple high impact ones, such as Stemline, Kite, argenX, Forty Seven & most recently Carisma

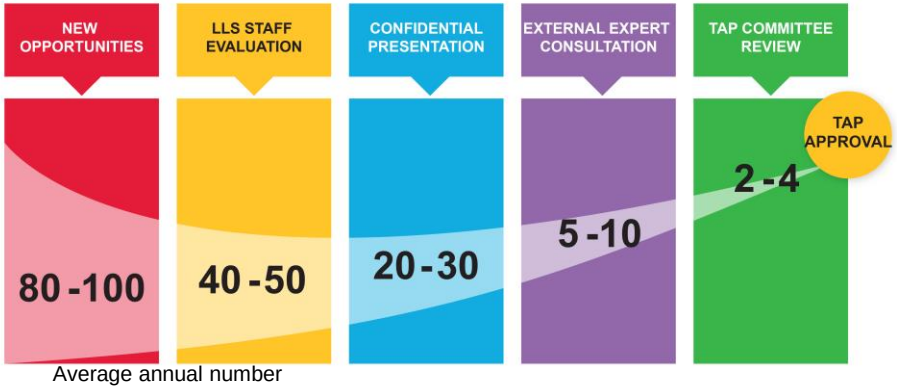
Therapy Acceleration Program Committee: https://www.lls.org/therapy-acceleration-program/oversight

TAP GOALS & INVESTMENT STRATEGY

Accelerate innovative blood cancer therapies and generate ROI for LLS mission

Focus on high-value assets:

- Existing and emerging populations with high unmet needs
- Gaps in current and emerging treatment landscape
- Innovative science, first-in-class assets
- First-in-heme/onc and registration trials
- Strong intellectual property, management, and finances



2 PATHS TO CO-INVEST WITH INVESTORS AND VENTURE PHILANTHROPIES

Strategic

- Range of Investment: $2 Million to $10 Million
- Presentation to TAP Committee
- Typically, 3-6 months to reach TAP Committee

Opportunistic

- Target Investment: $500,000
- LLS TAP team briefs TAP Committee Chair
- Transaction completion in 1-3 months

TAP ACTIVELY COLLABORATES WITH PARTNER COMPANIES

Investment Side Letter & Research Advisory Committee

Key features of LLS TAP Investment Side Letter

- Cites LLS Mission focus and company's focus and assets in blood cancer
- Investment amount on same terms and conditions as other investors, and use of proceeds (less detail for public companies)
- Exclusion of fees on LLS proceeds to investment banks and other intermediaries (via waiver, decreased total load, or refund to company)
- Information & observer rights (private firms)
- Research Advisory Committee (RAC) structure for recurring meetings between TAP team and company to discuss corporate and program progress – Company retains control of program
- Company participation in LLS events, publication review, and evaluate providing research materials to PI's.

Side letter captures the mission-driven collaborative nature of the relationship between LLS TAP and the partner companies

TAP VALUE ADD TO BIOTECH COMPANIES

TAP-funded companies benefit from LLS blood cancer insight

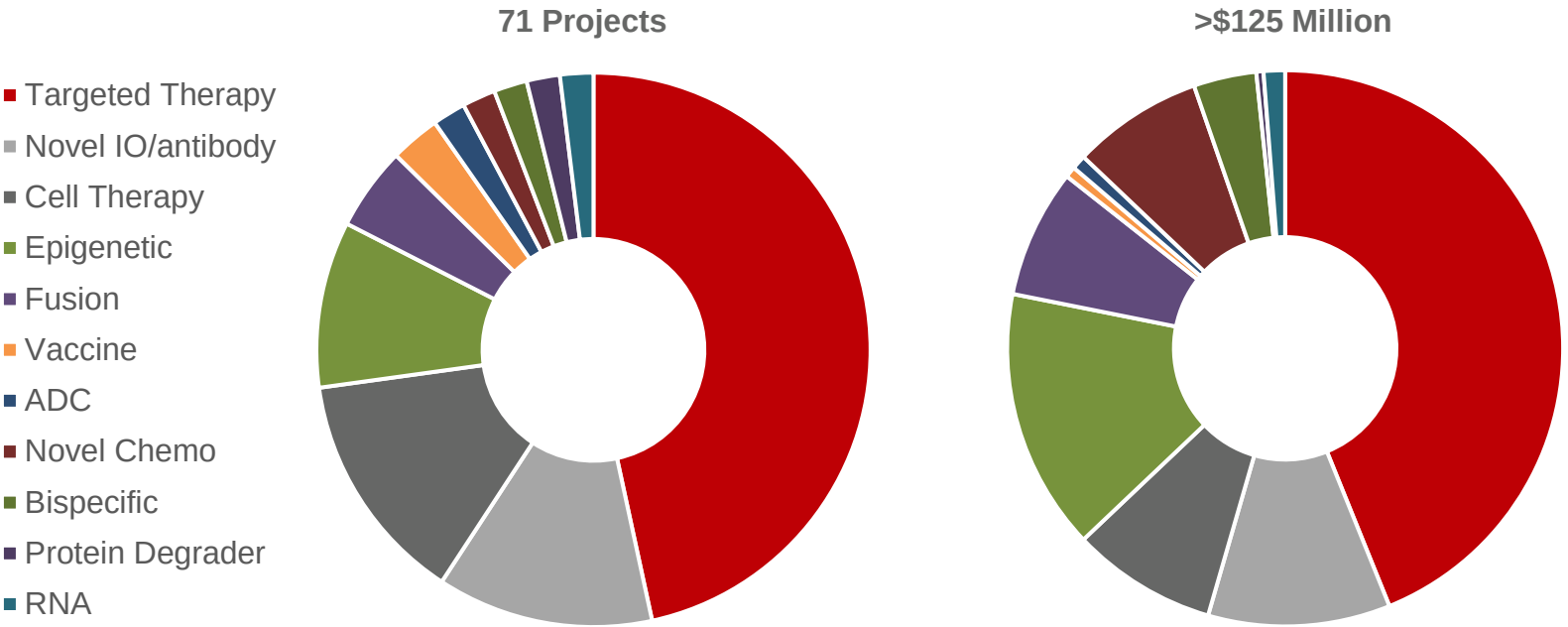
- Deep knowledge of indications and rapidly changing SoC
- Unique scientific, clinical, and drug development expertise
- Patient access services to enable understanding of patient needs
- Immediate access to extensive KOL network
- Pharmaceutical, biotech, and research institution partner connections
- Regulatory insight through LLS initiatives (Beat AML Master Clinical Trial®)

TAP record of success provides scientific & investment credibility, and visibility enabling companies to raise additional funds.

LEUKEMIA & LYMPHOMA SOCIETY®

TAP PORTFOLIO THERAPEUTIC PLATFORMS FUNDED (2007-2021)

Portfolio is aligned with strong industry focus on Targeted Therapy and reflects growing interest in Cell and IO Therapies in blood cancer



TAP PORTFOLIO INVESTMENTS IN ACUTE MYELOID LEUKEMIA (AML)

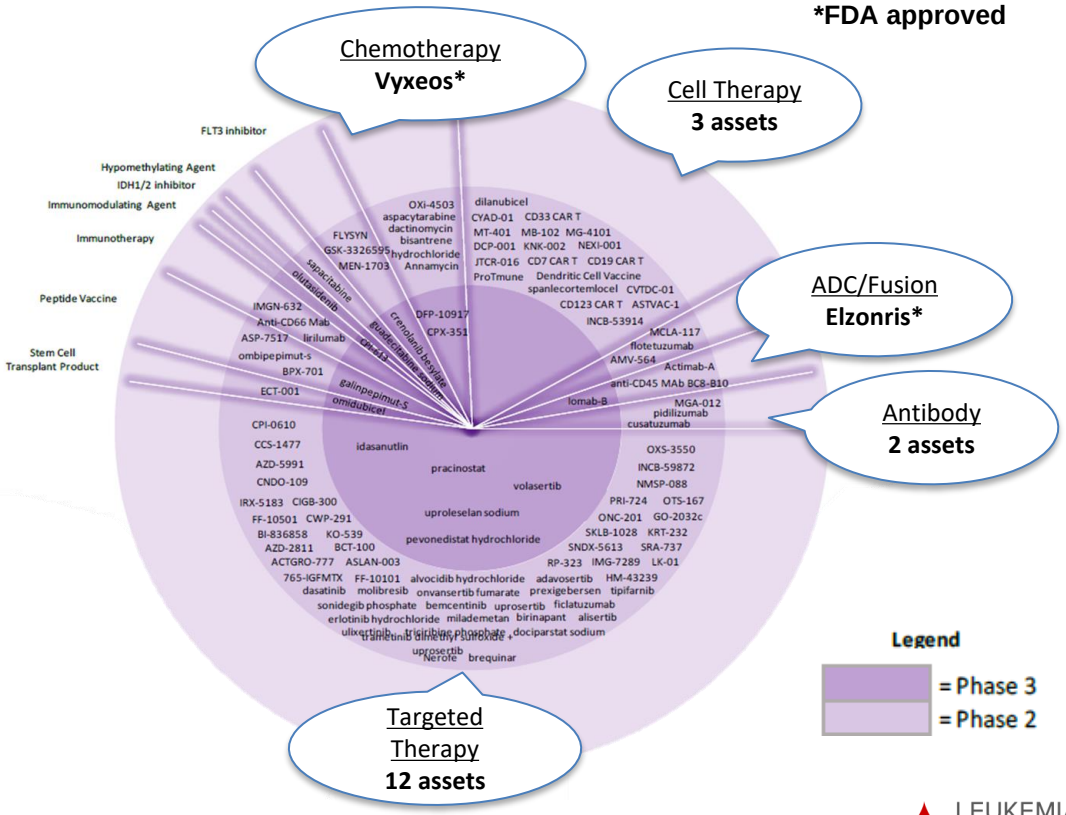
TAP team understands & successfully invests in complex therapeutic areas

High Unmet Medical Need

- 72,000 newly diagnosed in 8 major markets (2019)
- >10,000 deaths per year in US
- Complex, heterogeneous disease
- Ineffective long-term disease control with current therapies
- Elderly patients not fit for chemo
- Growing use of targeted therapies and combinations

Significant Market Opportunity

- Global AML market $1.4 Billion (2019)
- CAGR 13.6% (projected to 2029)



Overview of the development pipeline
2020 @GlobalData

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TAP PORTFOLIO ASSETS IN DEVELOPMENT

Therapy	Target/Modality	Indications	Preclinical	Phase 1	Phase 2	Phase 2 Reg / Phase 3	FDA status
Magrolimab + Azacitidine	CD47 antibody	MDS				FortySeven[1]	
AFM13	CD30/CD16A bispecific engager	PTCL				affimed	
Pelabresib + Ruxolitinib	BET small molecule	MPN				Constellation[2]	
Duvelisib	PI3Kδ/γ small molecule	PTCL				Verastem[3] Oncology	
Magrolimab + Rituximab	CD47 antibody	DLBCL			FortySeven[1]		
Cusatuzumab + Azacitidine	CD70 antibody	AML			argenx		
KO-539	Menin small molecule	AML		KURA[4] ONCOLOGY			
STRO-001	CD74 antibody drug conjugate	NHL/MM		SUTRO BIOPHARMA			(MM)
Mavorixafor + Ibrutinib	CXCR4 small molecule	Waldenström macroglobulinemia		X4 PHARMACEUTICALS			
RVU120	CDK8/19 small molecule	AML/MDS		RYVU THERAPEUTICS			
PVX-410 + ACY-241 +/- Len	XBP1/CD138/CS1 vaccine	Smoldering myeloma		OncoPep			
NEXI-001 NEXI-002	T cell therapy	AML MM		NexImmune			
BTX-A51	CK1-α/CDK7/CDK9 small molecule	AML/MDS		BioTheryX			
IO-202	LILRB4 antibody	AML/CMML		IMMUNE-ONC Therapeutics			
CB-010	CD19/PD1 KO allogeneic CAR	NHL		CARIBOU BIOSCIENCES			
KT-413 KT-333	IRAKIMiD degrader STAT3 degrader	DLBCL Heme malignancies	KYMERA				
IMT-009	CD161 antibody	NHL	Immunitas THERAPEUTICS				
TBD	*in vivo* CAR	TBD	ABINTUS				
TBD	CAR macrophage	TBD	carisma THERAPEUTICS				

Orphan Drug Designation

Fast Track Designation

Breakthrough Therapy Designation

Updated August 2021

1: Acquired by Gilead ◆ 2: Acquired by Morphosys ◆ 3: Duvelisib acquired by Secura Bio ◆ 4: Licensed from University of Michigan

TAP FUNDED ASSETS CREATE VALUE

TAP portfolio partners have had successful M&A, collaboration and licensing transactions

Transactions

>$20 Billion

TAP PORTFOLIO COMPANY WITH ASSETS IN ACTIVE BLOOD CANCER DEVELOPMENT

SIGNIFICANT EQUITY FINANCING RAISED CONCURRENT WITH OR POST- LLS TAP FUNDING

Equity since TAP Funding*	TAP Portfolio Company
>$1 Billion	argenx Epizyme
>$500 Million	Constellation[1] Kura[2] Kymera[2]
$250-$500 Million	Caribou[2] Curis Forty Seven[3] Sutro
$100-$250 Million	Affimed BioTheryx[2] Neximmune[2] X4[2]
$50-$100 Million	Carisma[2] Immune-Onc[2] Immunitas[2] Ryvu WindMIL[2]
<$50 Million	Abintus[2] Indaptus[2] OncoPep[2]

Table incudes assets without a regulatory approval . *GlobalData as of August 31, 2021
1: LLS asset funding (07/2021 M&A by MorphoSys); 2: LLS equity;
3: LLS equity participation plus asset funding (05/2020 M&A by Gilead)

KEY POINTS

LLS TAP has established record of success

- Targeting unmet medical needs
- Leading to FDA approvals of life changing therapeutics
- Creating value for patients, companies and ROI for the LLS mission

LLS would like to expand the reach & impact of the TAP program

- Leverage its unique expertise in novel collaborations
- Attract more companies and investors to blood cancer indications
- Expand TAP capacity to support the most promising assets

For more information, contact:

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LEUKEMIA & LYMPHOMA SOCIETY®

TAP
SUCCESS STORIES

BEATING CANCER IS IN OUR BLOOD.

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TAP SUCCESS: NOVEL LIPOSOMAL CYTOTOXIC THERAPY

Vyxeos® is the first FDA-approved treatment for two types of poor-prognosis AML (2017)

Celator Pharmaceuticals

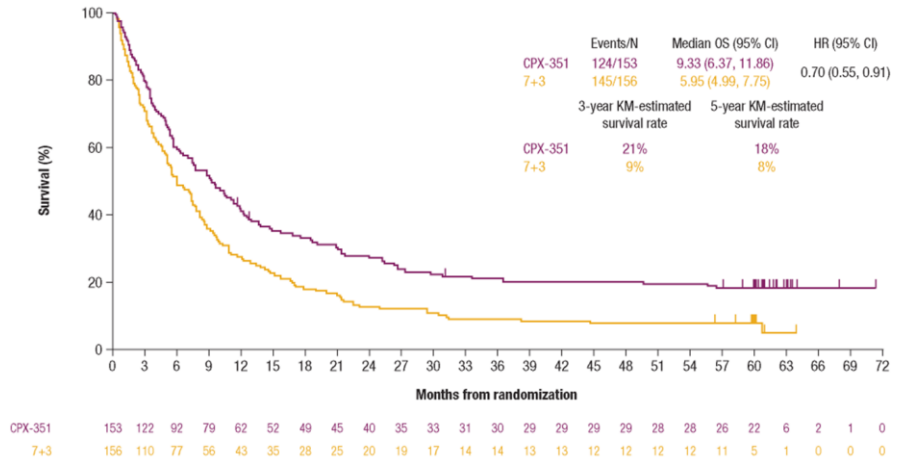
Vyxeos daunorubicin and cytarabine liposome for injection

ACQUIRED BY JAZZ PHARMA FOR $1.5 BILLION IN 2016

LLS TAP PROVIDED:

$9.15 MILLION ASSET FUNDING

ROI: $25.3 MILLION



Five-year final results of a phase 3 study of CPX-351 versus 7+3 in older adults with newly diagnosed high-risk/secondary AML

J. Lancet et al., ASCO 2020

TAP SUCCESS: CD19 CHIMERIC ANTIGEN RECEPTOR (CAR) T-CELL THERAPY

***Yescarta*® is the first FDA-approved CAR-T Therapy in NHL (2017)**

LLS has invested > $80 M in Cellular Immunotherapy since 1998

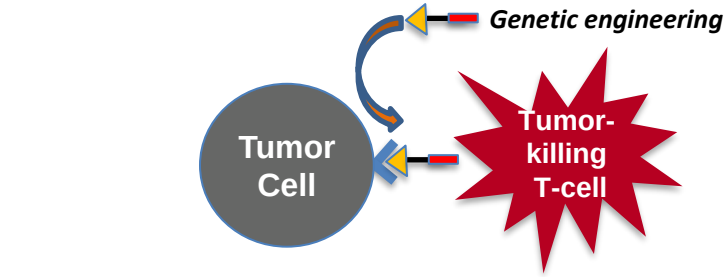
Kite
A GILEAD Company

ACQUIRED BY GILEAD FOR $11.9 BILLION IN 2017

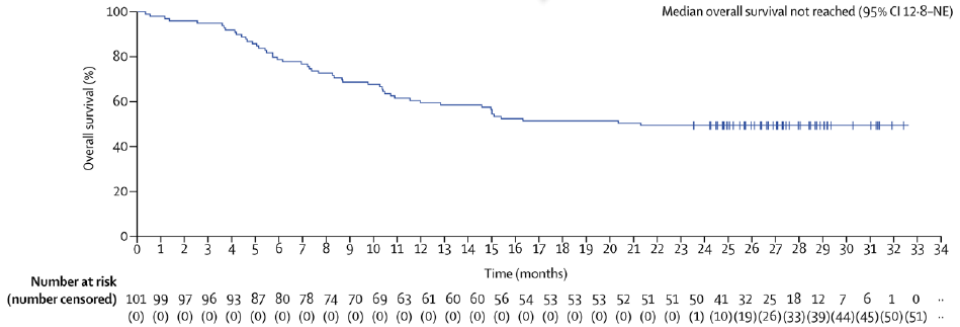
LLS TAP PROVIDED:

$2.5 MILLION ASSET FUNDING

ROI: $6.25 MILLION



NOW APPROVED
YESCARTA™
(axicabtagene ciloleucel) Suspension for IV infusion



Long-term safety and activity of axicabtagene ciloleucel in refractory large B-cell lymphoma (ZUMA-1): a single-arm, multicenter, Ph 1-2 trial

Locke et al. 2019. Lancet Oncology

TAP SUCCESS: NOVEL TARGETED CD123 FUSION PROTEIN

***Elzonris*® is the first approved therapy for rare blood cancer indication BPDCN (2018)**

Stemline

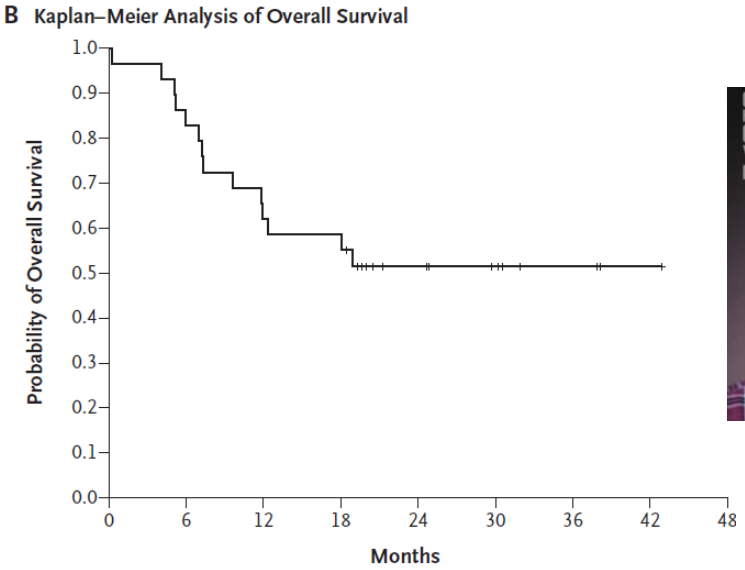
ACQUIRED BY MENARINI GROUP FOR $677 MILLION IN 2020

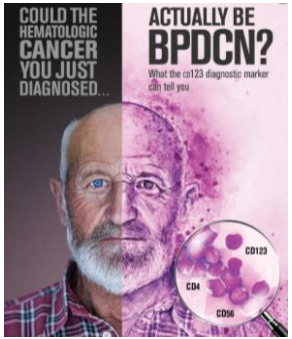
LLS TAP PROVIDED:

$2.9 MILLION NET ASSET FUNDING

ROI: $7.25 MILLION TO DATE

ELZONRIS® (tagraxofusp-erzs) Injection





Treatment outcomes of 29 patients with blastic plasmacytoid dendritic cell neoplasm (BPDCN) who received first-line treatment with tagraxofusp: Probability of overall survival

Pemmaraju et al., 2019. NEM

TAP SUCCESS: MAGROLIMAB (ANTI-CD47 ANTIBODY)

Magrolimab + Azacitidine induces high response rates in MDS and AML

Initiation of registration-enabling studies in 2020

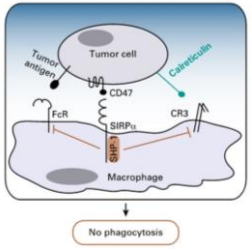
FORTY SEVEN

ACQUIRED BY GILEAD FOR $4.9 BILLION IN 2020

LLS TAP PROVIDED:

$4.175 MILLION ASSET FUNDING
$3 MILLION EQUITY INVESTMENT

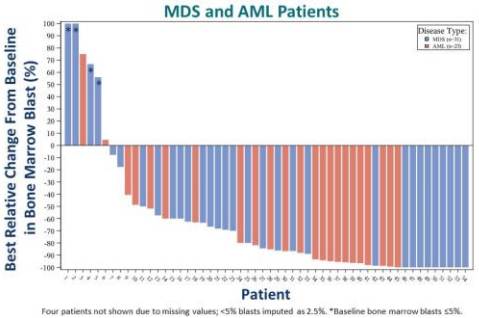
ROI: >$40 MILLION



Magrolimab blocks the 'don't eat me' signal on tumor cells

Best Overall Response	1L MDS N=33	1L AML N=25
ORR	30 (91%)	16 (64%)
CR	14 (42%)	10 (40%)
CRi	NA	4 (16%)
PR	1 (3%)	1 (4%)
MLFS/marrow CR	8 (24%) 4 with marrow CR + HI	1 (4%)
Hematologic improvement (HI)	7 (21%)	NA
SD	3 (9%)	8 (32%)
PD	0	1 (4%)

Response assessments per 2006 IWG MDS criteria and 2017 AML ELN criteria. Patients with at least 1 post-treatment response assessment are shown; all other patients are on therapy and are too early for first response assessment, except for 2 MDS patients not evaluable (withdrawal of consent) and 3 AML patients (1 AE, 2 early withdrawal).



Four patients not shown due to missing values; <5% blasts imputed as 2.5%. *Baseline bone marrow blasts ≤5%.

- Magrolimab + AZA induces a 91% ORR (42% CR) in MDS and 64% ORR (56% CR/CRi) in AML
- Responses deepened over time with a 56% 6-month CR rate in MDS patients (assessed in all patients 6 months after initial treatment)
- Median time to response is 1.9 months, more rapid than AZA alone
- Magrolimab + AZA efficacy compares favorably to AZA monotherapy (CR rate 6-17%[1,2])

1. Azacitidine USPI. 2. Fenaux P, et al. *Lancet Oncol.* 2009 ;10(3):223-232.

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TAP SUCCESS: KO-539 (MENIN INHIBITOR)

First-in-class inhibitor of the menin-MLL interaction in Ph1 trial for patients with relapsed/refractory AML

KURA ONCOLOGY

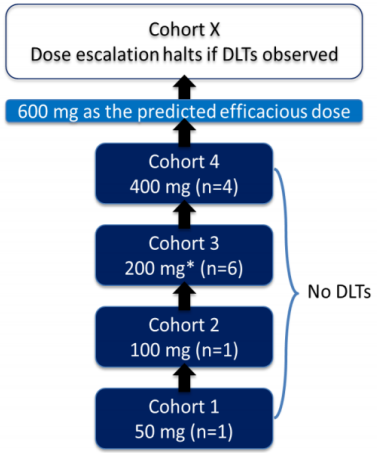
PRECLINICAL COMPOUNDS RELATED TO KO-539 LICENSED TO KURA ONCOLOGY IN 2015

LLS TAP PROVIDED:

$6.31 MILLION ASSET FUNDING TO U MICHIGAN

ROI: EQUITY: 26,000+ SHARES + $26,000+ CASH TO DATE

KO-539 Demonstrates Encouraging Early Clinical Activity



Clinical activities observed in 6 patients (efficacy evaluable = 8)

Dose	Mutational Profile	CYP3A4 inhibitor	# of prior regimens	Clinical Activity
400 mg	RUNX1, SRSF2, ASXL1, TET2, STAG2, BCOR, PTPN11	Yes	3	Decreased peripheral blasts
200 mg	U2AF1, TET2, p53, DNMT3A, PTPN11	No	4	Stable disease
	NPM1, FLT3-ITD, TET2, CUX1	Yes	4	Morphological leukemia-free state
	NPM1, DNMT3A, KMT2D	Yes	7	CR, MRD-
100 mg	SETD2, RUNX1	Yes	2	CR, MRD+
50 mg	KMT2A-r	Yes	2	Decreasing hydrea requirement

*Expanded to characterize PK

Data as of 02 November 2020

American Society of Hematology — Wang et al. ASH 2020 #115

- Grants initially and then TAP supported preclinical development (including chemistry) of menin-MLL interaction inhibitors by Jolanta Grembecka at University of Michigan and licensing of assets to Kura Oncology in Dec 2014
- Phase 1/2a trial for R/R AML with MLL fusions/NPM1 mutations
  - First patient dosed in Sept 2019
  - Initiated expansion cohorts in July 2021

TAP SUCCESS: PELABRESIB (BET INHIBITOR)

Pelabrelib + Ruxolitinib induces high spleen volume response rates in JAK-naive myelofibrosis

Initiation of registration-enabling study in 2020

Constellation PHARMACEUTICALS

ACQUIRED BY MORPHOSYS FOR $1.7 BILLION IN 2021

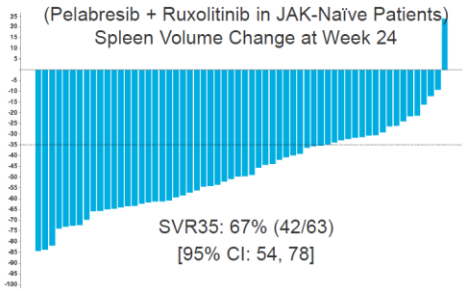
LLS TAP PROVIDED:

$7.35 MILLION ASSET FUNDING

ROI: $7.35 MILLION TO DATE

First Novel Mechanism Beyond JAK Inhibitors to Demonstrate POC in 1L MF

- Robust response rate to date in trial of > 60 1L patients
- Strong activity observed as a monotherapy and add on to ruxolitinib 2L+ patients
- Translational data and improvement in anemia supports disease-modifying potential
- Pelabresib has been generally well-tolerated to date
- Phase 3 trial (MANIFEST-2) under way



Data cutoff September 29, 2020 of MANIFEST trial
SVR35 = ≥35% spleen volume reduction from baseline

Constellation PHARMACEUTICALS

	1L setting (Arm 3)			
	Upfront combo with ruxolitinib	COMFORT-1*	COMFORT-2**	SIMPLIFY-1***
24-Week SVR35 Rate	67% (42/63)	41.9%	32%	29%

SVR35 response = ≥35% spleen volume reduction (Measured at 24 Weeks)

* COMFORT-1: A Double-blind, Placebo-controlled Trial of ruxolitinib for Myelofibrosis. Verstovsek, S., et al; N Engl J Med 2012;366:799-807.
** COMFORT-2: A Double-blind, Placebo-controlled Trial of ruxolinib vs. Best Available Therapy (BAT) for Myelofibrosis. Harrison, C., et al; NEJM 2012; 336: 787-798.
*** SIMPLIFY-1: A Phase III Randomized Trial of Momelotinib Versus ruxolitinib in Janus Kinase Inhibitor-Naïve Patients With Myelofibrosis. Mesa, R., et al. J Clin Oncol 2017: 35(34):3844-3850.

THERAPY ACCELERATION PROGRAM COMMITTEE

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THANK YOU!

LLS Research Grants and TAP

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