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

- 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

OUR IMPACT

- Fundraising Campaigns & Events
- Legacy and other giving
- Corporate donations and sponsorships
- ROI from TAP/Grants
- Co-Pay
- Foundations

LEUKEMIA & LYMPHOMA SOCIETY

BEATING CANCER IS IN OUR BLOOD.
LLS GLOBAL RESEARCH AND DEVELOPMENT FOCUS

Research and development programs and clinical trials using LLS resources

**DISCOVER**
Research Grant Programs

**DEVELOP**
Beat AML Initiative

**COMMERCIALIZE**
Patient Education, Access & Advocacy

---

**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 66 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
>$120 Million invested to date
  - Biotech: >$80 Million
  - Institutions: ~$40 Million
  - >60 financings of companies and assets
  - >20 assets currently in clinical 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.
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
- Oversight 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, managed over 20 TAP partnerships including Constellation, Epizyme, miRagen & most recently Kymera
- 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, and Forty Seven

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

BEATING CANCER IS IN OUR BLOOD.
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 month to reach TAP Committee

**Opportunistic**
- Target Investment: $500,000
- LLS TAP team briefs TAP Committee Chair
- Transaction completion in 1-3 months
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.
TAP ACADEMIC CLINICAL MODEL

Co-fund assets with institutions on clinical stage projects

- **Therapeutics Development**
  Collaborate with leading institutions on assets with potential to outlicense or spin out

- **Clinical Indication Expansion**
  Actively solicit and fund innovative ISTs to impact the current SoC

- **Special Projects**
  Build collaborations with non-profits and other cooperative groups
TAP PORTFOLIO THERAPEUTIC PLATFORMS FUNDED (2007-2020)

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

- Targeted Therapy
- Novel IO/antibody
- Cell Therapy
- Epigenetic
- Fusion
- Vaccine
- ADC
- Novel Chemo
- Bispecific
- Protein Degrader
- RNA

66 Projects

$118 Million
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)

*FDA approved

Overview of the development pipeline
2020 @GlobalData
# TAP PORTFOLIO ASSETS IN CLINICAL DEVELOPMENT

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Target/Modality</th>
<th>Indications</th>
<th>Preclinical</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 2 Reg / Phase 3</th>
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<tbody>
<tr>
<td>Rigosertib</td>
<td>PLK1/PI3K Small molecule</td>
<td>MDS</td>
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<tr>
<td>Magrolimab</td>
<td>Anti-CD47 Antibody</td>
<td>MDS</td>
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<td>+ Azacitidine</td>
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<td>Magrolimab</td>
<td>Anti-CD47 Antibody</td>
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<td>+ Rituximab</td>
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<td>+/- Ruxolitinib</td>
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<tr>
<td>ARGX-110 +/-</td>
<td>Anti-CD70 Antibody</td>
<td>AML</td>
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<td>Azacitidine or Ven</td>
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<tr>
<td>Duvelisib</td>
<td>PBK5/γ Small molecule</td>
<td>PTCL</td>
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<td>+ Romidepsin</td>
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<tr>
<td>Cobomarsen</td>
<td>mR-155 Small molecule</td>
<td>CTCL</td>
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<td>Fimepizinostat +</td>
<td>HDAC/PI3K Small molecule</td>
<td>DLBCL</td>
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<tr>
<td>X4P-001 +/-</td>
<td>CXCR4 Small molecule</td>
<td>Waldenström's</td>
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<td>Ibrutinib</td>
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<td>AML/MDS</td>
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<tr>
<td>PCX-410 +/-</td>
<td>Vaccine</td>
<td>Smoldering myeloma</td>
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<td>ACY-241 +/- Len</td>
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<td>STRO-001</td>
<td>Anti-CD74 Antibody</td>
<td>MM/DLBCL/MCL/FL</td>
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<tr>
<td>Pinometostat +</td>
<td>DOT1L Small molecule</td>
<td>MLL leukemia</td>
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<tr>
<td>CAR-37</td>
<td>T Cell Therapy</td>
<td>B-cell lymphoma/ T-cell lymphoma</td>
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<tr>
<td>NK-cells +/-</td>
<td>NK Cell Therapy</td>
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<td>ALT-803</td>
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<td>KO-539</td>
<td>Menin Small molecule</td>
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<td>NEXI-001</td>
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<td>AML</td>
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<td>PROTACs</td>
<td>IRAK4/STAT3 Small molecule</td>
<td>Lymphoma</td>
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</tbody>
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TAP FUNDED ASSETS CREATE STRATEGIC VALUE

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

LLS TAP Funding
$40 Million

Strategic Transactions
$20 Billion
### TAP PORTFOLIO COMPANY WITH ASSETS IN ACTIVE BLOOD CANCER TRIALS

<table>
<thead>
<tr>
<th>Equity since TAP Funding*</th>
<th>TAP Portfolio Company</th>
</tr>
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<tbody>
<tr>
<td>&gt;$1 Billion</td>
<td>arGEN-X EpiZyme</td>
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<tr>
<td>&gt;$500 Million</td>
<td>Constellation Kura²</td>
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<td>[Onconova]</td>
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<tr>
<td>$250-$500 Million</td>
<td>Forty Seven¹</td>
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<td>$100-$250 Million</td>
<td>Affimed</td>
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<td>Sutro</td>
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<td></td>
<td>MiRagen²</td>
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<td>X4²</td>
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<td></td>
<td>Curis</td>
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<tr>
<td></td>
<td>Kymera²</td>
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<tr>
<td>$50-$100 Million</td>
<td>BioTheryx²</td>
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<td></td>
<td>Ryvu</td>
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<td></td>
<td>WindMIL²</td>
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<tr>
<td>&lt;$50 Million</td>
<td>Neximmune²</td>
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<td></td>
<td>OncoPep²</td>
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</tbody>
</table>

*Significant equity financing raised since LLS TAP funding

Table includes assets without a regulatory approval. *GlobalData as of July 15, 2020
1: LLS equity participation plus asset funding (05/2020 M&S by Gilead); 2: LLS equity
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:
Lore Gruenbaum, PhD 914.821.8361 | Lore.Gruenbaum@LLS.org
Javeed Froozan, MBA 914.821.8817 | Javeed.Froozan@LLS.org
TAP SUCCESS STORIES
TAP SUCCESS: NOVEL LIPOSOMAL CYTOTOXIC THERAPY

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

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

**ACQUIRED BY GILEAD FOR $11.9 BILLION IN 2017**

**LLS TAP PROVIDED:**

$2.5 MILLION ASSET FUNDING

**ROI: $6.25 MILLION**

---

*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*
ACQUIRED BY MENARINI GROUP FOR $677 MILLION IN 2020

LLS TAP PROVIDED:

$2.9 MILLION NET ASSET FUNDING

ROI: $5.8 MILLION TO DATE

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

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

Magrolimab + Azacitidine 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 Azacitidine alone

Magrolimab + Azacitidine efficacy compares favorably to Azacitidine monotherapy (CR rate 6-17%1,2)


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%)
PFS | 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%)

Patient
TAP SUCCESS: KO-539 (MENIN INHIBITOR)
First-in-class inhibitor of the menin-MLL interaction in Ph1 trial for patients with relapsed/refractory AML

KO-539 is a potent & selective menin-MLL inhibitor with robust activity in models of MLL-rearranged AML

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

- 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
- KO-539 received orphan drug designation in July 2019; in ph1/2a trial for r/r AML with MLL fusions/NPM1 mutations (FPI in Sep 2019)

Burrows et al. 2017. AACR poster
THERAPY ACCELERATION PROGRAM COMMITTEE

Casey Cunningham, MD (Chair) +
Santé Ventures

Giulio Draetta, MD, PhD
The University of Texas MD Anderson Cancer Center

Christoper Flowers, MD, MS, FASCO +
The University of Texas MD Anderson Cancer Center

Patrick Fortune, PhD, MBA
Partners Healthcare Systems

Laura Kaufman, PhD, DABT
Private Consultant

Ronald Levy, MD
Stanford University School of Medicine

Vern Norviel, Esq.
Wilson Sonsini Goodrich & Rosati

Robert Rosen, JD +
Grewhawke Capital Advisors

Steven Rosen, MD, FACP +
City of Hope

Robert Spiegel, MD, FACP
Spiegel Consulting LLC

David Weinstock, MD
Dana-Farber Cancer Institute

+ National Board Member
THANK YOU!

LLS Research
Grants and TAP

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CSO & SVP Research

Michael Yaffe, PhD
VP of Research

Erik Nelson, PhD
Exec. Dir. Research

James Kasper, MS
Sr. Dir. Research

Orsi Giricz, PhD
Dir. Research

Lore Gruenbaum, PhD
VP of TAP

Jun Xu, Ph.D.
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Blaine Robinson, PhD
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Javeed Froozan, MBA
VP of BD & Alliance