

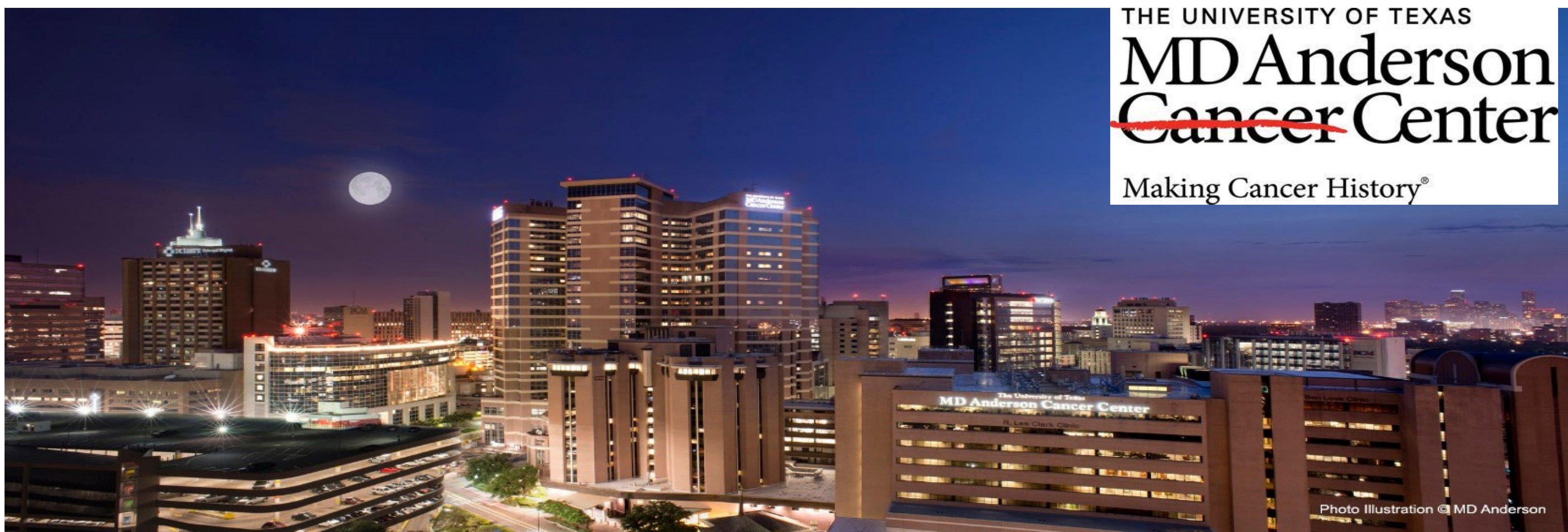
LIFESTEST 2026

Nashville



**Current and Emerging Research & Trials in Liposarcoma:
Key Liposarcoma Trials Currently Accruing**

Dr. Neeta Somaiah



Key Liposarcoma Trials Currently Accruing

Neeta Somaiah, M.D.

Professor & Chair

Sarcoma Medical Oncology

- TRIAL 1

Adding Immunotherapy to Chemotherapy

Pembrolizumab + Doxorubicin vs. Doxorubicin alone for dedifferentiated liposarcoma, undifferentiated pleomorphic sarcoma, and related poorly differentiated sarcomas

NCT06422806 · National Cancer Institute · Recruiting

— Why this trial

NCT06422806

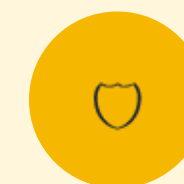
Standard chemotherapy alone doesn't always keep these aggressive sarcomas from growing. This trial asks whether pairing it with immunotherapy does better:



Chemotherapy

Doxorubicin

Damages tumor cell DNA directly, blocking its ability to divide and repair itself



Immunotherapy

Pembrolizumab

Helps the patient's own immune system recognize and attack cancer cells

Goal: To see if combination helps patients with certain sarcomas including Dedifferentiated Liposarcoma live longer without disease progression.

Study design & who might join

NCT06422806 · Phase III · Recruiting

RANDOMIZED 1:1

Arm A

Doxorubicin +
pembrolizumab

Arm B

Doxorubicin alone

If disease progresses on Arm B, patients may receive pembrolizumab — letting researchers compare starting immunotherapy early vs. later.

Key eligibility

- Dedifferentiated liposarcoma, undifferentiated pleomorphic sarcoma, or a related poorly differentiated sarcoma
- Metastatic (spread beyond original site) or unresectable (cannot be removed by surgery)

Ask your care team if this trial (NCT06422806) may be a fit for you.

- TRIAL 2

Combining a Cell-Cycle Pill With Chemotherapy

Sequential Abemaciclib + Gemcitabine for advanced leiomyosarcoma and dedifferentiated liposarcoma

NCT06498648 · NCI *MD Anderson Cancer Center- Recruiting

— Why this trial

About half of leiomyosarcomas and almost all well-differentiated/dedifferentiated liposarcomas still have a working "brake" on cell division, a protein called **Rb** . This trial uses that brake to set up a one-two punch:



In lab models, this "pause, then strike" sequence shrank tumors significantly more than either drug alone — and controlled disease longer.

— Study design & who might join

STEP 1

Finding the right dose

Phase 1 · MD Anderson only

Small groups of patients receive abemaciclib followed by gemcitabine on a 28-day cycle, with blood tests, imaging, and a tumor biopsy to confirm the Rb "brake" is present.

Key eligibility

- Advanced or metastatic leiomyosarcoma or dedifferentiated liposarcoma
- Tumor biopsy confirms the Rb "brake" protein is present
- At least one prior systemic treatment; age 18+; adequate organ function
- Able to perform daily activities with minimal to moderate assistance

STEP 2

Comparing to standard care

Phase 2 · Multiple centers, 50 patients

Arm A

Sequential abemaciclib +
gemcitabine (the new approach)

Arm B

Standard-of-care gemcitabine +
docetaxel

Patients are assigned by chance (1:1). If the disease progresses, patients may cross over to try the other approach.

Ask your care team if this trial (NCT06498648) may be a fit for you.

- TRIAL 3

Blocking Two Growth Pathways at Once

Phase Ib/II Mirdametinib + Palbociclib for advanced liposarcoma

NCT06843967 · Memorial Sloan Kettering Cancer Center · Recruiting

— Why this trial

NCT06843967

Liposarcoma cells often rely on more than one growth signal to keep dividing. This trial blocks two of them together:



Mirdametinib

MEK inhibitor

Blocks a growth-signaling pathway tumor cells use to keep multiplying



Palbociclib

Cell-cycle (CDK4/6) inhibitor

Blocks the separate signal tumor cells use to divide

Goal: find a safe, effective combined dose for people with metastatic, recurrent, or unresectable liposarcoma.

— Study design & who might join

NCT06843967 · Phase Ib/II · Recruiting

DOSE-FINDING STUDY

Different doses of **mirdametinib** are tested together with a fixed dose of **palbociclib** to find the combination that is safe and effective.

Drug 1

Mirdametinib — dose varies

Drug 2

Palbociclib — fixed dose

Key eligibility

- Dedifferentiated liposarcoma, Myxoid liposarcoma, pleomorphic liposarcoma
- Metastatic, recurrent, or unresectable disease

Ask your care team if this trial (NCT06843967) may be a fit for you.

- TRIAL 4

Cutting Off the Tumor's Blood Supply, Plus Chemo

Zanzalintinib + Eribulin for advanced liposarcoma and leiomyosarcoma

NCT06957431 · Washington University in St. Louis · Recruiting

— Why this trial

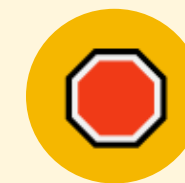
NCT06957431

This trial pairs a chemotherapy with a drug that starves the tumor of blood supply:



Eribulin
Chemotherapy

Disrupts the internal scaffolding tumor cells need to divide



Zanzalintinib
Blood-vessel signal blocker

Blocks signals the tumor uses to grow new blood vessels

Goal: improve progression-free survival compared to eribulin alone, based on historical data.

— Study design & who might join

NCT06957431 · Phase I · Recruiting

PHASE I SAFETY & EFFECT STUDY

Tests whether **zanzalintinib** combined with **eribulin** is tolerable and improves progression-free survival compared to eribulin alone.

Single site — Washington University in St. Louis

Key eligibility

- Unresectable or metastatic leiomyosarcoma or adipocytic (fat-cell) sarcoma
- Progressed on 1–4 prior lines of therapy
- Measurable disease on imaging

Ask your care team if this trial (NCT06957431) may be a fit for you.

- TRIAL 5

Engineering a Patient's Own Immune Cells

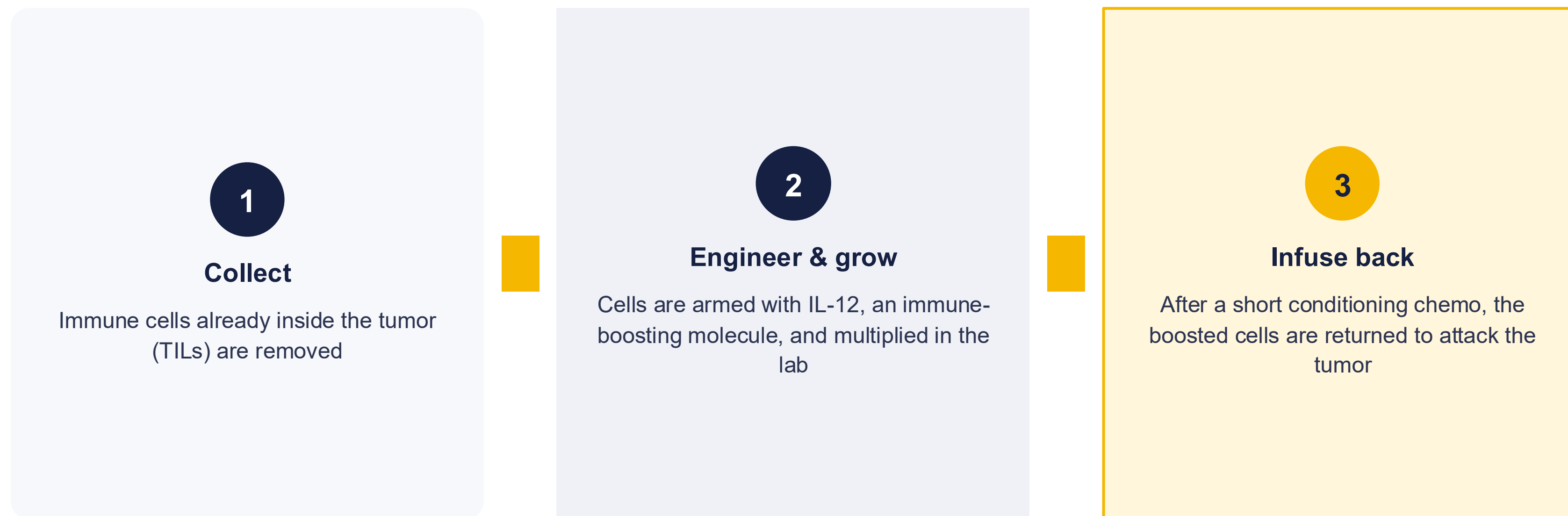
IL-12-armed tumor-targeted T cell therapy (attIL12-TIL) for advanced/metastatic sarcoma, including liposarcoma

NCT06474676 · MD Anderson Cancer Center · Recruiting

— Why this trial

NCT06474676

This is a cell therapy: a patient's own tumor-fighting immune cells are collected, boosted, and given back:



Part A finds the right dose across advanced sarcomas; Part B tests that dose specifically to see if it can control liposarcoma growth.

Study design & who might join

NCT06474676 · Phase I · Recruiting in Stages

TWO-PART STUDY

Part A

Find the safe, recommended dose across advanced/metastatic soft tissue or bone sarcomas

Part B

Test that dose specifically in unresectable liposarcoma

Given with cyclophosphamide, a conditioning chemotherapy, before the cell infusion.

Key eligibility

- Relapsed or metastatic soft tissue or bone sarcoma (Part A), or unresectable liposarcoma (Part B)
- Tumor tissue available to collect and grow immune cells from

Ask your care team if this trial (NCT06474676) may be a fit for you.

- TRIAL 6

Delivering Radioisotope Directly to the Tumor

ATLAS: Actinium Therapy for Late-stage Aggressive Sarcomas

NCT07156565 · Ratio Therapeutics · Recruiting

— Why this trial

NCT07156565

Fibroblast activation protein alpha (FAP α) is a membrane-bound serine protease that is largely absent in healthy tissue but overexpressed in the stroma of most solid tumors (on cancer-associated fibroblasts, or CAFs). In specific aggressive cancers, such as sarcomas, FAP is frequently overexpressed on the tumor cells

1

Find the target

PET imaging agent

Imaging agent (Cu64-LNTH-1363S) is given first

A scan confirms the tumor carries the marker this therapy targets

2

Deliver the dose

Conjugated radioisotope, Actinium-225 (Ac-225), emits high-energy α -particles

A radioactive particle rides that same marker straight to tumor cells

Goal: learn if this targeted radiation is safe, find the best tolerated dose, and see whether it can shrink advanced sarcoma.

Study design & who might join

NCT07156565 · Phase I · Recruiting

DOSING SCHEDULE

Treatment is given **once every 8 weeks** , targeting 4 cycles (up to 6 max) over 12 months.

First cycle involves 3 clinic visits in week one, then weekly visits for the remaining 7 weeks, for close monitoring.

Key eligibility

- Late-stage, aggressive/advanced sarcoma
- Tumor must show the marker this therapy targets, confirmed by special PET scan

Ask your care team if this trial (NCT07156565) may be a fit for you.

Other trials for Myxoid Liposarcoma worth asking about

Additional immunotherapy and cell-therapy studies open to myxoid liposarcoma patients

- **N-803 in patients with previously treated myxoid/round cell liposarcoma** **NCT07261657 · Northwestern**
- **Engineered NK/T-cell receptor therapy targeting NY-ESO-1** **NCT06083883 · MD Anderson**
- **IL-15/IL-21 armored GPC3-CAR T cells for GPC3-positive solid tumors** **NCT06198296 · Baylor College of Medicine**
- **First-in-human DS-2243a, a bispecific antibody targeting NY-ESO-1** **NCT06644755 · Daiichi Sankyo**

Ask your care team whether any of these trials may be a fit for you.

LIFEFEST2026

Nashville



LIPOSARCOMA
SUPPORT  NETWORK

Thank you to our sponsors for supporting our mission to present high-quality education, engagement & support to the liposarcoma community!

