SPEARHEAD-1:

A Phase 2 Trial of ADP-A2M4 SPEAR T-Cells in Patients with Advanced Synovial Sarcoma or Myxoid/Round Cell Liposarcoma

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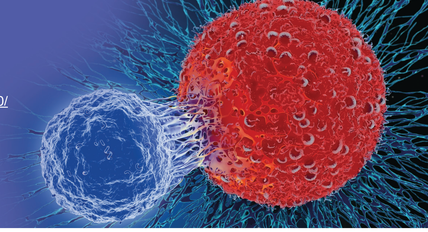
A device-friendly version of this poster (with additional content) can be viewed by clicking here: http://adaptimmune.posterlab.info/ASCO2020/



Background

- ADP-A2M4 SPEAR T-cells target MAGE-A4⁺ tumors (**Figure 1**)
- MAGE-A4 is highly expressed in synovial sarcoma and myxoid/round cell liposarcoma (MRCLS) in the context of HLA-A*02 (**Figure 2**)
- This Phase 2 trial was initiated based on the favorable benefit:risk profile of ADP-A2M4 observed in a Phase 1 trial (NCT03132922), which demonstrated compelling clinical responses in patients with synovial sarcoma

Figure 1. SPEAR T-cells

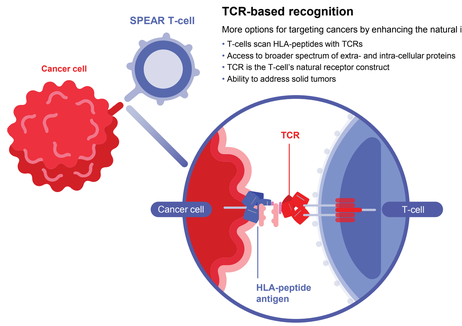
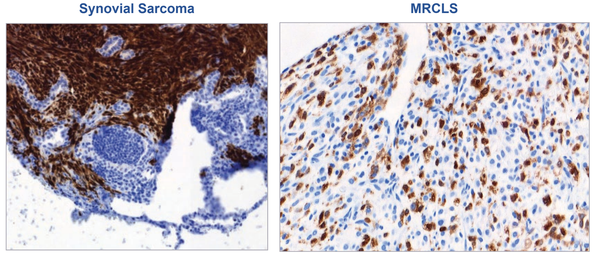


Figure 2. MAGE-A4 expression (IHC analysis)



SPEAR T-cell mechanism of action video can be viewed by clicking here: https://youtu.be/zdI8IGXoQd0

Full trial details from ClinicalTrials.gov can be viewed by clicking here: https://clinicaltrials.gov/ct2/show/NCT04044768

Soft tissue sarcomas

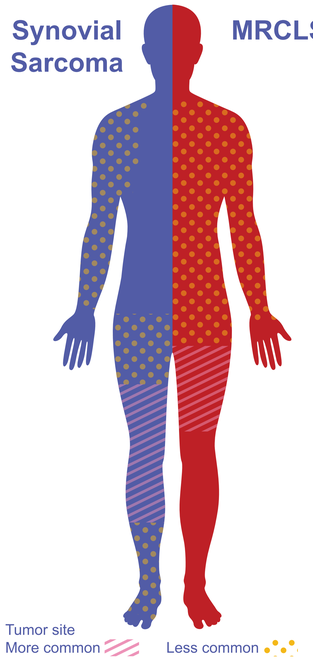
- >50 subtypes, including liposarcoma and synovial sarcoma
- Prognosis in advanced disease remains unfavorable

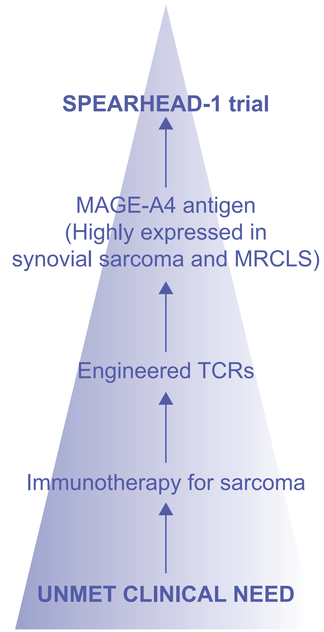
Synovial Sarcoma

- ~800–1000 new cases/year in the United States
- Often occurs in patients aged <40 years
- High metastatic potential

MRCLS

- ~750 new cases/year in the United States
- Typically presents at 35–55 years of age
- One-third MRCLS become metastatic





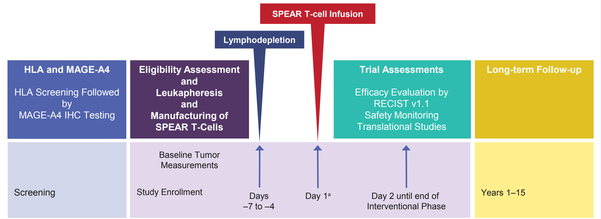
SPEARHEAD-1 trial (NCT04044768)

- Recruiting 45 patients from North America and Europe
- Advanced synovial sarcoma or MRCLS, prior chemotherapy, HLA-A*02 and MAGE-A4 positive

Trial Details

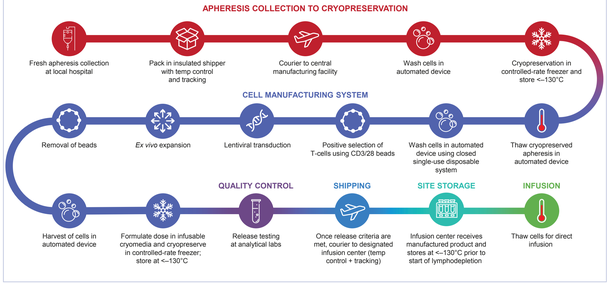
- Primary objective is to evaluate the efficacy of ADP-A2M4 in patients with synovial sarcoma or MRCLS
  - Determined by the Overall Response Rate, defined as incidence of complete or partial responses as assessed by independent RECIST v1.1 review
- We are currently recruiting trial participants
  - Total of 20 sites open: 14 in the US, 1 in Canada, 2 in France, and 3 in Spain
- Trial design and engineered T-cell pathway are shown below (**Figure 3** and **Figure 4**)

Figure 3. SPEARHEAD-1 trial design



[a]Patient is hospitalized for T-cell infusion and discharged at the discretion of the Investigator

Figure 4. Patient cell journey



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Abbreviations

HLA, human leukocyte antigen; IHC, immunohistochemistry; MAGE-A4, melanoma-associated antigen-A4; MRCLS, myxoid/round cell liposarcoma; PD, progressive disease; RECIST, response evaluation criteria in solid tumors; SPEAR, specific peptide enhanced affinity receptor; TCR, T-cell receptor

ASCO Annual Meeting, May 29-June 2, 2020 (Virtual Format)