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Interim analysis of a phase I study of SNK01 (Autologous Non-Genetically Modified Natural Killer Cells With Enhanced Cytotoxicity) and avelumab in advanced refractory sarcoma.

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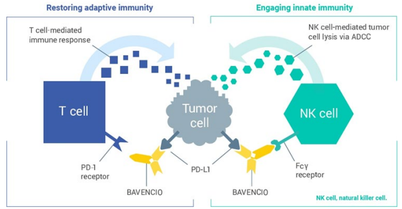
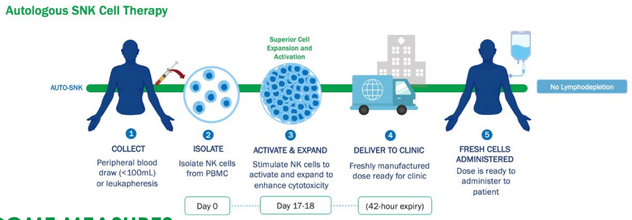
INTRODUCTION

- For patients with advanced sarcomas, in the refractory setting, there are few if any effective salvage options. The likelihood of response and/or tumor control further diminishes with each subsequent line of therapy.
- Natural Killer (NK) cells have recently been implicated in the antitumor response to immune checkpoint inhibitors (ICIs) with some evidence suggesting a positive role in PD-L1 negative tumors.
- SNK01 is a first-in-kind autologous non-genetically modified NK cell therapy with highly enhanced cytotoxicity and over 90% activating receptor expression. Neither lymphodepletion or cytokine support are required.
- Avelumab is an anti-PD-L1 immunotherapy with dual engagement of both the adaptive and innate immune systems.



STUDY DESIGN

In this Phase I dose escalation study (NCT03941262), Cohort 4 is comprised of up to 20 patients treated with 800 mg of avelumab plus 4 x 10^9 SNK01 every two weeks via IV infusion. Patients were eligible regardless of PD-L1 status and permitted to continue treatment indefinitely until progression or unacceptable toxicity.



OUTCOME MEASURES

Primary Endpoint: Safety

Secondary Endpoints: ORR via RECIST v1.1, PFS, overall survival

RESULTS

Patient Population

- 17 patients with advanced refractory solid tumors were enrolled. Median age is 52.5 years (range 20 – 75)
- 10 patients were female
- Patients had a median 5 lines of prior therapy (range 1 – 8)

Safety

- Patients received a median of 8 doses (range 5 to 30)
- Out of 154 total doses administered, there were two grade 2 and one grade 3 adverse events related to avelumab, but unrelated to SNK01

Efficacy

- 17 patients included in efficacy analysis
- Best ORR is 11.7% with 2 PR and 6 SD
- Median PFS is 11.28 weeks
- 4 patients (28.5%) had PFS of greater than 41 weeks
- Median overall survival is 24.86 weeks

Subject #	Age	Cancer Dx	Gender	# Prior Tx	PD-L1 Status	Target Lesion Best Response	Overall Best Response	PFS (weeks)
401	32	Myxoid Liposarcoma	F	7	NA	SD	SD	12.1
403	33	Epithelioid sarcoma	M	8	PD-L1+	PR	PR	54
405	75	Epitheloid Malignant Mesothelioma	M	1	NA	PD	PD	5.4
406	50	Leiomyosarcoma	F	2	PD-L1-	SD	SD	11.1
407	21	Osteosarcoma	M	5	NA	PD	PD	6
409	64	Endometrial stromal sarcoma	F	1	PD-L1-	NE	NE	4.1
414	66	Leiomyoasarcoma	M	3	PD-L1-	SD	SD	44.1
416	20	Chondroblastic Osteosarcoma	M	4	PD-L1-	CR	PR	44.3
417	41	Leiomyosarcoma	F	6	PD-L1+	PD	PD	5.4
418	28	Sarcoma, not otherwise specify	F	4	NA	SD	SD	41.3
419	55	Leiomyosarcoma	F	6	PD-L1-	PD	PD	5.3
421	59	Leiomyosarcoma of uterus	F	2	NA	PD	PD	7.4
424	64	Poorly differentiated Pleomorphic Liposarcoma	M	5	NA	NE	NE	5.4
425	25	Ewing'S Sarcoma	M	7	NA	SD	SD	11.3
426	57	Leiomyosarcoma	M	6	NA	SD	PD	16
427	60	Inflammatory Myofibroblastic Tumor (IMT)	F	5	PD-L1-	SD	SD	12.3
428	62	Leiomyosarcoma	F	6	NA	SD	PD	5.3

CR: Complete Response PR: Partial Response SD: Stable Disease PD: Progressive Disease NE: Not Evaluable

Table 1. Patient Characteristics, Response, and individual PFS (weeks)

CONCLUSIONS

- SNK01 combined with avelumab was very well tolerated.
- SNK01 appears to reduce the toxicity incidence of avelumab compared to historical monotherapy data.
- This combination appears to have some clinical activity against several heavily pretreated advanced sarcomas independent of PD-L1 status.

FIGURE 1. OVERALL SURVIVAL

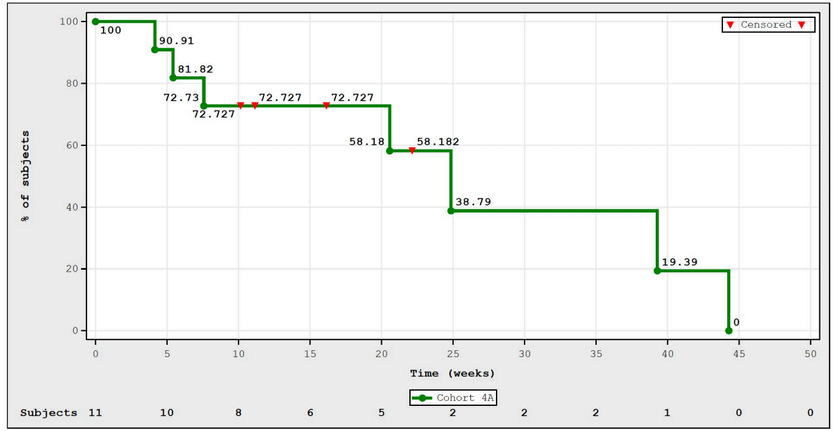
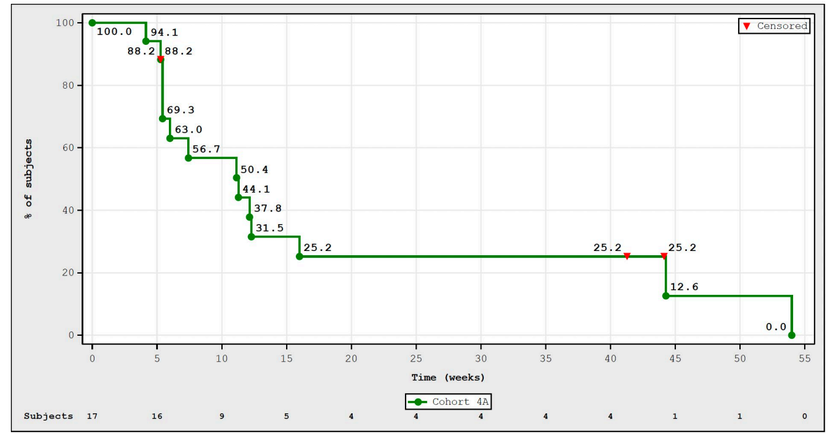


FIGURE 2. PROGRESSION FREE SURVIVAL



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