AFM13 Is the Most Advanced Bispecific NK-Cell Engaging Antibody in Clinical Development Substantially Enhancing NK-Cell Effector Function and Proliferation

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Introduction

AFM13 is an NK-cell engaging CD30/CD16A bispecific tetravalent TandAb antibody currently in Phase 2 clinical development in Hodgkin lymphoma (HL) and other CD30+ malignancies. It engages NK-cells through CD16A with high affinity and specificity and confers significantly stronger NK-cell activation when compared to other therapeutic antibodies. We have previously shown synergistic efficacy when NK-cell activation by AFM13 is combined with check-point modulation such as anti-PD-1 treatment, which is known to unleash T-cell and NK-cell activity. The goal of this study was to identify further strategies for combination treatments and biomarkers that potentially indicate NK-cell responses to AFM13 treatment.

Key results

1. AFM13 amplifies IL-2 and IL-15–mediated NK-cell proliferation
2. AFM13 is more potent than anti-CD30 IgG
3. AFM13 enhances NK-cell cytotoxicity to CD30+ tumor cells
4. AFM13-activated NK-cells can recover from transient exhaustion upon culture in IL-2

1. AFM13 induces an activated NK-cell phenotype

2. AFM13 amplifies NK-cell proliferation to IL-15 and low IL-2

3. AFM13 improves killing of CD30+ tumor cells by NK cells

4. AFM13 is more potent than anti-CD30 IgG

5. Recovery of AFM13-mediated NK-cell cytotoxicity after pre-activation by AFM13

Disclosures

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