

A Novel Class of NK-Cell Engagers Targeting NKp30

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Compass Therapeutics' NK Cell Engager Platform

Functions of NK cells

- Rapid, first responders
- Highly potent
- Versatile target killing ability
- Critical immune system mediators

Compass' lead NK cell engager demonstrates highly efficient tumor cell killing



Time 0



E:T ratio (2:1)

Effectors = primary NK cells Targets = MM1R cells

Green: live Multiple Myeloma tumor cells



Components of Optimized NK Engagers



- Specifically target 1 or more tumor associated antigens (TAA's) to localize activity and reduce toxicity
- 2. Optimally engage CD16a through Fc to drive effective ADCC response
- 3. Trigger signaling of additional NK activating receptors to synergistically amplify CD16a response or maintain activity after CD16a downregulation
- 4. Inhibit checkpoint pathways to prevent NK cell suppression



Compass' Novel Anti-NKp30 Bispecific Platform

Empirical Discovery of Optimal Bispecific NK Engagers

Comprehensive antibody discovery





NKp30 is a Potent Activating Receptor Expressed on NK cells and Other Effector Cells Compass NK cells engagers activate CD16+ and CD16- NK cells







Moretta A. et al., Ann Rev Immunol, 2011

- NKp30 is a potent activating receptor on NK cells
- **Expressed on NK cells and subsets** ٠ of effector T-cell populations such as $\gamma\delta$ T cells
- Known roles in tumor control and pathogen clearance

NKp30 is expressed on $\gamma\delta$ T cells in the bone marrow of MM patients





CTX-4419 Induces Potent NK Cell Killing of Target Cells







Better potency than BCMA-lgG1 mAb

 Potent activity towards targets cells with high, medium & low BCMA



CTX-4419 Does Not Activate NK Cells in the Absence of BCMA Expressing Target Cells

Opportunity for Better Safety Profile Compared to Other Cell Engagers



Primary NK cells, H929 target cells, 10 nM antibody



Single Dose of CTX-4419 Potently Depletes Immunoglobulin-Secreting Cells in Bone Marrow of Cynomolgus Monkeys and Decreases Serum IgM levels



CTX-4419 displays IgG-like PK in cynomolgus monkey

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Compass' NK Engager Platform Summary

Key properties of CTX-4419, a first-in-class NKp30xBCMA bispecific

- Potent Enhances ADCC, cytokine production, and NK-cell proliferation compared to monoclonal antibodies
- Large therapeutic window Active against target cells with wide range of antigen expression, but no activity in the absence of target
- *Resistant to CD16a downregulation* Activates NK cells in the absence of CD16a engagement
- Highly manufacturable Monoclonal-like drug-like properties and pharmacokinetics
- Flexible format Common-LC format amenable to multi-TAA or multi-NKR targeting
- Potential to target additional effector cell types
- CTX-4419 induces potent depletion of plasma cells in cynomolgus monkeys
- Compass' highly modular platform has the potential to tailor TAA and NK cell receptors to target multiple indications

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Thank you !

