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(54) Title: TRIVALENT MULTISPECIFIC BINDING MOLECULES AND METHODS OF USE THEREOF

(57) Abstract: The present disclosure relates to multispecific binding molecules comprising two T cell antigen (TCA) targeting moieties flanking an antigen targeting moiety, in some cases further comprising a multimerization moiety such as an Fc region. Certain aspects relate to multimeric molecules comprising a first half antibody comprising a TCA targeting moiety, an antigen targeting moiety, and an Fc domain and a second half antibody comprising a TCA targeting moiety and an Fc domain. The disclosure further provides pharmaceutical compositions comprising the multispecific binding molecules, and methods of use of the multispecific binding molecules in antigen-specific immune activation and in therapeutic applications, as well as nucleic acids encoding the multispecific binding molecules, recombinant cells that express the multispecific binding molecules, and methods of producing the multispecific binding molecules.

WO 2025/199243 A1