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(54) Title: METHODS AND COMPOSITIONS FOR USE IN HOMOLOGOUS RECOMBINATION

(57) Abstract: Methods for homologously recombining an exogenous nucleic acid into a target cell genome of a multicellular organism, e.g., an animal, are provided. In the subject methods, a targeting vector that includes a linearizing endonuclease site, e.g., a recombinase recognition site, and a homologous recombination integrating element, is contacted with the multicellular organism, e.g., via systemic or local administration, such that the target cell(s) of the multicellular organism takes up the targeting vector. The targeting vector is one that has been linearized by a linearizing endonuclease, e.g., a recombinase, at some point prior to the homologous recombination event, e.g., prior to or after contact with the multicellular organism. Following uptake by the target cell(s), the integrating element then homologously recombines into the target cell genome from the linearized targeting vector. Also provided are targeting vectors, systems and kits for use in practicing the subject methods.