# Claims

1. An IL-2 mutant, wherein the IL-2 mutant has a single amino acid residue mutation in wild-type human IL-2: M39D.

2. A fusion protein or conjugate, comprising the IL-2 mutant of claim 1 and a non-IL-2 functional moiety.

3. A polynucleotide, encoding the IL-2 mutant of claim 1 or the fusion protein or conjugate of claim 2.

4. An expression vector, comprising the polynucleotide of claim 3.

5. A host cell, comprising the expression vector of claim 4, or having the polynucleotide of claim 3 integrated into the genome of the host cell.

6. A pharmaceutical composition, comprising the IL-2 mutant protein of claim 1 or the fusion protein or conjugate of claim 2 and a pharmaceutically acceptable excipient.

7. Use of the IL-2 mutant of claim 1 or the fusion protein of claim 2, for preparing a medicament for the treatment of a disease in which IL-2 is used for immunotherapy in an individual.