CLAIMS

1. A fusion protein, comprising an Fc-binding domain, and a CD3-binding domain, wherein said Fc-binding domain is an ectodomain of CD64, wherein said CD3-binding domain is an scFv of an anti-CD3 monoclonal antibody.

2. The fusion protein of claim 1, wherein:
(i) the said anti-CD3 monoclonal antibody is Muromonab-CD3; or
(ii) the said anti-CD3 monoclonal antibody is deimmunized, humanized Muromonab-CD3.

3. The fusion protein of claim 1, wherein the amino acid sequence of the said fusion protein is SEQ ID NO: 3.

4. A pharmaceutical composition comprising:
(i) the fusion protein of any one of claims 1-3, and a pharmaceutically acceptable excipient, or
(ii) DNA and/or RNA constructs that encode the fusion protein of any one of claims 1-3, and a pharmaceutically acceptable excipient.

5. A kit comprising one or more containers filled with gene constructs encoding the fusion protein of any one of claims 1-3, with pharmaceutically acceptable excipients.

6. The pharmaceutical composition of claim 4 for use in therapy.

7. Use of a pharmaceutical composition comprising the fusion protein of any of claims 1-3 and a therapeutic antibody against at least one cell-surface antigen in the manufacture of a medicament for the treatment of a condition selected from the group consisting of a cancer, an inflammatory disease, an autoimmune disease, transplant

rejection and an infection, wherein the medicament upon administration, acts against at least one cell-surface antigen.

8. The use of claim 7, wherein said cell-surface antigen is selected from the group consisting of CD19, CD20, CD33, EpCAM, HER2/neu, PD-L1, PD-1 and CTLA-4.

9. The use of claim 7, wherein said antibody comprises an Fc region substantially similar to human IgG4.

10. The use of claim 7, wherein said antibody is selected from the group consisting of Rituximab, Trastuzumab and Nivolumab.