The relative concentration of the dendrimer and the fibrinogen used for polymerisation will depend on the nature of the dendrimer, for example how many fibrinogen-binding peptides are present, and the sequence of the fibrinogen-binding peptides. The Applicant has observed rapid polymerisation times using peptide dendrimers of the invention at concentrations ranging from 0.005mg/ml to 2mg/ml with physiological levels of fibrinogen (3mg/ml).

For some peptide dendrimers of the invention, as the concentration of the dendrimer is increased, the speed of fibrinogen polymerisation (i.e. the "clotting time") is reduced. Without being bound by theory, this is believed to be due to saturation of the 'a' and/or 'b' holes of the fibrinogen molecules by the fibrinogen-binding peptides of the dendrimer. At these higher dendrimer concentrations, there is an excess of fibrinogen-binding peptides competing for free fibrinogen binding holes (i.e. for empty 'a' and/or 'b' holes), and this competition is believed to reduce the rate at which polymerisation takes place.

There is also provided according to the invention a kit for formation of a hydrogel, which comprises a peptide dendrimer of the invention, an agent of the invention, or a composition of the invention, and, separately, fibrinogen.

There is further provided according to the invention a hydrogel comprising a copolymer of a peptide dendrimer of the invention, of an agent of the invention, or of a composition of the invention, and fibrinogen.

Peptide dendrimers, agents, and compositions of the invention may be used as haemostatic agents, for example to treat bleeding, or to treat a wound.

According to the invention there is provided a method of treating bleeding, or of treating a wound, which comprises administering a peptide dendrimer of the invention, an agent of the invention, or a composition of the invention, to a site of bleeding or to a wound.

According to the invention, there is also provided the use of a peptide dendrimer as disclosed herein, an agent as disclosed herein or a composition as disclosed herein, in the manufacture of a medicament for the treatment of bleeding or for treating a wound.

The peptide dendrimer, agent, or composition, may polymerise endogenous (i.e. host) fibrinogen present at the site of bleeding or the wound. In some embodiments, exogenous fibrinogen may be administered as well as the peptide dendrimer, the agent, or the composition, of the invention to the site of bleeding or to the wound.

The term "fibrinogen" is used herein to include natural fibrinogen, recombinant fibrinogen, or a derivative of fibrinogen that can be converted by thrombin to form fibrin (for example, natural or recombinant fibrin monomer, or a derivative of fibrin monomer that may or may

36. ~~A method of treating bleeding, or of treating a wound, which comprises administering a peptide dendrimer according to any of claims 1 to 14, or 17 to 24, an agent according to any of claims 15 to 24, or a composition according to any of claims 25 to 30, to a site of bleeding or to a wound.~~ Use of a peptide dendrimer according to any of claims 1 to 14, or 18 to 24, an agent according to any of claims 15 to 24, or a composition according to any of claims 25 to 30, in the manufacture of a medicament for the treatment of bleeding or for treating a wound.

37. A ~~method~~ use according to claim 36, ~~which comprises administering~~wherein ~~fibrinogen and the peptide dendrimer, fibrinogen and the agent, or fibrinogen and~~ the ~~composition,~~ medicament is to be administered to the site of bleeding or to the wound.

38. A peptide dendrimer according to any of claims 1 to 14, or 18 to 24, an agent according to any of claims 15 to 24, or a composition according to any of claims 25 to 30, for use as a medicament.

39. A peptide dendrimer according to any of claims 1 to 14, or 18 to 24, an agent according to any of claims 15 to 24, or a composition according to any of claims 25 to 30, for use in the treatment of bleeding or for use in treating a wound.

~~40. Use of a peptide dendrimer according to any of claims 1 to 14, or 18 to 24, an agent according to any of claims 15 to 24, or a composition according to any of claims 25 to 30, in the manufacture of a medicament for use in the treatment of bleeding or for use in treating a wound.~~