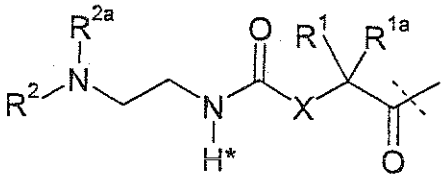
SUMMARY

In a first aspect, there is provided a pharmaceutical composition comprising an insulin compound in a concentration that is sufficient to maintain a therapeutically effective level of the insulin compound in blood plasma for at least 3 days characterized by having a pharmacokinetic profile in vivo with substantially no burst of the insulin compound and wherein the insulin compound is fully contained in a depot, wherein the insulin compound is covalently linked in the depot, which is a polymer gel, such as a hydrogel and wherein the insulin compound is an insulin linker conjugate D-L, wherein

D represents the insulin moiety; and

-L is a non-biologically active linker moiety -L^1 represented by formula (I),



(I)

wherein the dashed line indicates the attachment to one of the amino groups of the insulin by forming an amide bond;

X is $C(R^3R^{3a})$; or $N(R^3)$;

R^{1a}, R^{3a} are independently selected from the group consisting H, $NH(R^{2b})$, $N(R^{2b})C(O)R^4$ and C_{1-4} alkyl;

R^1, R^2 R^{2a}, R^{2b}, R^3, R^4 are independently selected from the group consisting of H and C_{1-4} alkyl,

wherein L^1 is substituted with one L^2-Z and optionally further substituted, provided that the hydrogen marked with the asterisk in formula (I) is not replaced by a substituent and wherein

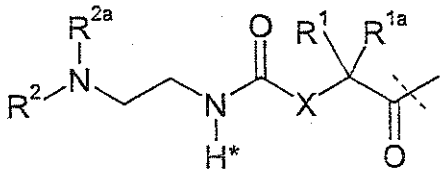
L^2 is a single chemical bond or a spacer; and

Z is a hydrogel.

In a second aspect, there is provided a pharmaceutical composition comprising an insulin compound in a concentration of at least 10 mg/ml characterized by having a pharmacokinetic profile in vivo with substantially no burst of the insulin compound and wherein the insulin compound is fully contained in a depot, wherein the insulin compound is covalently linked in the depot, which is a polymer gel, such as a hydrogel, and wherein the insulin compound is an insulin linker conjugate D-L, wherein

D represents the insulin moiety; and

-L is a non-biologically active linker moiety -L^1 represented by formula (I),



(I)

,

wherein the dashed line indicates the attachment to one of the amino groups of the insulin by forming an amide bond;

X is $C(R^3R^{3a})$; or $N(R^3)$;

R^{1a}, R^{3a} are independently selected from the group consisting H, $NH(R^{2b})$, $N(R^{2b})C(O)R^4$ and C_{1-4} alkyl;

R^1, R^2 R^{2a}, R^{2b}, R^3, R^4 are independently selected from the group consisting of H and C_{1-4} alkyl,

wherein L^1 is substituted with one L^2-Z and optionally further substituted, provided that the hydrogen marked with the asterisk in formula (I) is not replaced by a substituent and wherein

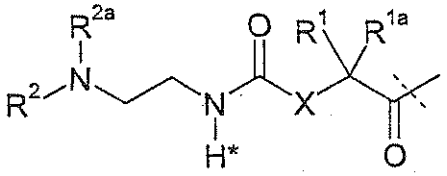
L^2 is a single chemical bond or a spacer; and

Z is a hydrogel.

In a third aspect, there is provided a pharmaceutical composition comprising an insulin compound in a concentration of at least 11 mg/mL to be administered in a single dose of at least 10 mg of the insulin compound and wherein the insulin compound is fully contained in a depot, wherein the insulin compound is covalently linked in the depot, which is a polymer gel, such as a hydrogel and wherein the insulin compound is an insulin linker conjugate D-L, wherein

D represents the insulin moiety; and

-L is a non-biologically active linker moiety -L^1 represented by formula (I),



(I)

wherein the dashed line indicates the attachment to one of the amino groups of the insulin by forming an amide bond;

X is $C(R^3R^{3a})$; or $N(R^3)$;

R^{1a}, R^{3a} are independently selected from the group consisting H, $NH(R^{2b})$, $N(R^{2b})C(O)R^4$ and C_{1-4} alkyl;

R^1, R^2 R^{2a}, R^{2b}, R^3, R^4 are independently selected from the group consisting of H and C_{1-4} alkyl,

wherein L^1 is substituted with one L^2-Z and optionally further substituted, provided that the hydrogen marked with the asterisk in formula (I) is not replaced by a substituent and wherein

L^2 is a single chemical bond or a spacer; and

Z is a hydrogel.

In a fourth aspect, there is provided use of an insulin compound for preparing a pharmaceutical composition as defined herein for treatment or prevention of a disease or disorder associated with insulin deficiency in which treatment or prevention with an insulin compound is beneficial, such as hyperglycemia, pre-diabetes, impaired glucose tolerance, diabetes I, diabetes type II, syndrome X.

In a fifth aspect, there is provided a container comprising the pharmaceutical composition as defined herein.

In the sixth aspect, there is provided a suspension comprising the pharmaceutical composition as defined herein.

In the seventh aspect, there is provided a method of preparing a suspension as defined herein, comprising the steps of reconstituting the dry pharmaceutical composition as defined herein by adding reconstitution solution.

In the eight aspect, there is provided a kit of parts comprising a pharmaceutical composition as defined herein .

In the ninth aspect, there is provided a kit of parts, comprising a needle and a container containing reconstitution solution, and the dry composition as defined herein for use with the needle.