

Compounds which are 1-(2'-aminoacyl)-2-cyanopyrrolidine derivatives according to general formula (1) are DP-IV inhibitors for treatment of impaired glucose tolerance or type 2 diabetes; wherein A is selected from groups (2,3 and 4); X is selected from aminoacyl groups corresponding to the natural amino acids, acyl groups  $R^3CO$ , groups  $R^4COOC(R^5)(R^6)OCO$ , methoxycarbonyl, ethoxycarbonyl and benzyloxycarbonyl;  $R^1$  is selected from H,  $C_1$ - $C_6$  alkyl residues,  $(CH^aNH^{W^1})$ ,  $(CH_2)_bCOW^{W^2}$ ,  $(CH_2)_cOW^{W^2}$ ,  $CH(Me)OW^{W^4}$ ,  $(CH_2)_d-C_6H_4-W^5$  and  $(CH_2)_eSW^{W^6}$ , where a is 2-5, b is 1-4, c is 1-2, d is 1-2, e is 1-3,  $W^1$  is  $COW^6$ ,  $CO_2W^6$  or  $SO_2W^6$ ,  $W^2$  is OH,  $NH_2$ ,  $OW^6$  or  $NHW^6$ ,  $W^3$  is H or  $W^6$ ,  $W^4$  is H or  $W^6$ ,  $W^5$  is H, OH or OMe, and  $W^6$  is  $C_1$ - $C_6$ , alkyl, optionally substituted phenyl, optionally substituted heteroaryl or benzyl and  $R^2$  is selected from H and  $(CH_2)_n-C_5H_3N-Y$ , where n is 2-4 and Y is H, F, Cl, NO; or CN, or  $R^1$  and  $R^2$  together are  $-(CH_2)_p-$  where p is 3 or 4;  $R^3$  is selected from H,  $C_1$ - $C_6$  alkyl and phenyl;  $R^4$  is selected from H,  $C_1$ - $C_6$  alkyl, benzyl and optionally substituted phenyl;  $R^5$  and  $R^6$  are each independently selected from H and  $C_1$ - $C_6$  alkyl or together are  $-(CH_2)_m-$ , where m is 4-6;  $R^7$  is selected from pyridyl and optionally substituted phenyl;  $R^8$  is selected from H and  $C_1$ - $C_3$  alkyl; and  $R^9$  is selected from H,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy and phenyl.

