on the efficacy and duration of action of the compound used, on whether the treatment is for the therapy of an acute or chronic disease or prophylactic, or on whether other active compounds are administered in addition to a compound of the formula I. In general, a daily dose from about 0.01 mg/kg to about 100 mg/kg, or from about 0.1 mg/kg to about 10 mg/kg, or from about 0.3 mg/kg to about 5 mg/kg (in each case mg per kg of bodyweight), for example, is appropriate for administration to an adult weighing about 75 kg in order to obtain the desired results. The daily dose in this case can be administered in a single dose or, in particular when larger amounts are administered, divided into several, for example two, three or four, individual doses. The administration can also be carried out continuously, for example by continuous infusion or injection. Depending on the individual behavior in a specific case, it may be necessary to deviate upward or downward from the indicated dosages.

In one aspect, there is provided the use of a therapeutically effective amount of the pharmaceutical composition as defined herein, in the manufacture of a medicament for treating wound healing disorders.

In one aspect, there is provided the use of a therapeutically effective amount of the pharmaceutical composition as defined herein, in the manufacture of a medicament for wound healing.

In one aspect, there is provided the use of a therapeutically effective amount of the pharmaceutical composition as defined herein, in the manufacture of a medicament for wound healing in diabetics.

In one aspect, there is provided the use of a therapeutically effective amount of the pharmaceutical composition as defined herein, in the manufacture of a medicament for treating diabetic foot syndrome.

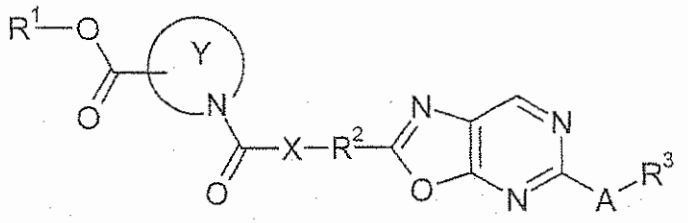
The following examples illustrate the invention.

When example compounds containing a basic group were purified by preparative high pressure liquid chromatography (HPLC) on reversed phase (RP) column material and, as customary, the eluent was a gradient mixture of water and acetonitrile containing trifluoroacetic acid (TFA), they were in part obtained in the form of their acid addition salt with trifluoroacetic acid, depending on the details of the workup such as evaporation or lyophilization conditions. In the names of the example compounds and their structural formulae any such contained trifluoroacetic acid is not specified.

The prepared compounds were in general characterized by spectroscopic data and chromatographic data, in particular mass spectra (MS) and HPLC retention times (Rt; in min) which were obtained by combined analytical HPLC/MS characterization (LC/MS), and/or nuclear magnetic resonance (NMR) spectra. In the NMR characterization, the chemical shift δ (in ppm), the number of hydrogen atoms and the multiplicity (s = singlet, d = doublet, dd = double doublet, t = triplet, dt = double triplet, q = quartet, m = multiplet; br = broad) of the signals is given. In the MS

Claims

1. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them,



I

wherein

A is chosen from NH, O and S;

X is chosen from $(C_1$-$C_6)$-alkanediyl, $(C_2$-$C_6)$-alkenediyl, $(C_2$-$C_6)$-alkynediyl, $(C_3$-$C_7)$-cycloalkanediyl and $(C_1$-$C_6)$-alkanediyl-oxy, which all are optionally substituted by one or more identical or different substituents chosen from fluorine and hydroxy, wherein the oxygen atom of the $(C_1$-$C_6)$-alkanediyl-oxy group is bonded to the group R^2;

Y is 4-membered to 7-membered, saturated or partially unsaturated, monocyclic or bicyclic heterocycle which, in addition to the ring nitrogen atom depicted in formula I, comprises 0, 1, 2 or 3 identical or different ring heteroatoms chosen from N, O and S, wherein one or two of the additional ring nitrogen atoms can carry a hydrogen atom or a $(C_1$-$C_4)$-alkyl substituent and one of the ring sulfur atoms can carry one or two oxo groups, and wherein the heterocycle is optionally substituted on one or more ring carbon atoms by identical or different $(C_1$-$C_4)$-alkyl substituents;

R^1 is chosen from hydrogen, $(C_1$-$C_4)$-alkyl and $(C_3$-$C_7)$-cycloalkyl-C_zH_{2z}-, wherein z is chosen from 0, 1 and 2;

R^2 is chosen from phenylene and a divalent residue of an aromatic, 5-membered to 6-membered monocyclic heterocycle which comprises 1, 2 or 3 identical or different ring heteroatoms chosen from N, O and S, wherein one of the ring nitrogen atoms can carry a hydrogen atom or a substituent R^{21}, and wherein the phenylene and divalent residue of an aromatic heterocycle are optionally substituted on one or more ring carbon atoms by identical or different substituents R^{22};

R^3 is chosen from $(C_1\text{-}C_6)$-alkyl, $(C_2\text{-}C_6)$-alkenyl, $(C_2\text{-}C_6)$-alkynyl, $(C_3\text{-}C_7)$-cycloalkyl-C_uH_{2u}- and Het-C_vH_{2v}-, wherein u and v are chosen from 1 and 2, or R^3 is a residue of a saturated or unsaturated, 3-membered to 10-membered, monocyclic or bicyclic ring which comprises 0, 1, 2, 3 or 4 identical or different ring heteroatoms chosen from N, O and S, wherein one or two of the ring nitrogen atoms can carry a hydrogen atom or a $(C_1\text{-}C_4)$-alkyl substituent and one or two of the ring sulfur atoms can carry one or two oxo groups, and wherein the residue of a ring is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{31};

R^{21} is chosen from $(C_1\text{-}C_4)$-alkyl, $(C_3\text{-}C_7)$-cycloalkyl-C_wH_{2w}- and oxy, wherein w is chosen from 0, 1 and 2;

R^{22} is chosen from halogen, hydroxy, $(C_1\text{-}C_4)$-alkyl-, $(C_1\text{-}C_4)$-alkyloxy, $(C_1\text{-}C_4)$-alkyl-$S(O)_m$-, amino, nitro, cyano, hydroxycarbonyl, $(C_1\text{-}C_4)$-alkyloxycarbonyl, aminocarbonyl and aminosulfonyl;

R^{31} is chosen from halogen, $(C_1\text{-}C_4)$-alkyl, $(C_3\text{-}C_7)$-cycloalkyl, hydroxy, $(C_1\text{-}C_4)$-alkyloxy, oxo, $(C_1\text{-}C_4)$-alkyl-$S(O)_m$-, amino, $(C_1\text{-}C_4)$-alkylamino, di($(C_1\text{-}C_4)$-alkyl)amino, $(C_1\text{-}C_4)$-alkylcarbonylamino, $(C_1\text{-}C_4)$-alkylsulfonylamino, nitro, cyano, $(C_1\text{-}C_4)$-alkylcarbonyl, aminosulfonyl, $(C_1\text{-}C_4)$-alkylaminosulfonyl and di($(C_1\text{-}C_4)$-alkyl)aminosulfonyl;

Het is a residue of a saturated, 4-membered to 7-membered, monocyclic heterocycle which comprises 1 or 2 identical or different ring heteroatoms chosen from N, O and

S and which is bonded via a ring carbon atom, wherein the residue of a heterocycle is optionally substituted by one or more identical or different substituents chosen from fluorine and $(C_1$-$C_4)$-alkyl;

m is chosen from 0, 1 and 2, wherein all numbers m are independent of each other;

wherein all cycloalkyl and cycloalkanediyl groups, independently of each other and independently of any other substituents, are optionally substituted by one or more identical or different substituents chosen from fluorine and $(C_1$-$C_4)$-alkyl;

wherein all alkyl, alkanediyl, C_uH_{2u}, C_vH_{2v}, C_wH_{2w}, C_zH_{2z}, alkenyl, alkenediyl, alkynyl and alkynediyl groups, independently of each other and independently of any other substituents, are optionally substituted by one or more fluorine substituents.

2. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in claim 1, wherein A is chosen from O and S.

3. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in one or more of claims 1 and 2, wherein X is chosen from $(C_1$-$C_6)$-alkanediyl, $(C_2$-$C_6)$-alkenediyl and $(C_1$-$C_6)$-alkanediyl-oxy.

4. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in one or more of claims 1 to 3, wherein Y is a 4-membered to 7-membered, saturated, monocyclic or bicyclic heterocycle which, in addition to the ring nitrogen atom depicted in formula I, comprises 0 or 1 ring heteroatoms chosen from N, O and S, wherein an additional ring nitrogen atom can carry a hydrogen atom or a $(C_1$-$C_4)$-alkyl substituent and a

ring sulfur atom can carry one or two oxo groups, and wherein the heterocycle is optionally substituted on one or more ring carbon atoms by identical or different (C_1-C_4)-alkyl substituents.

5. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in one or more of claims 1 to 4, wherein R^2 is chosen from phenylene and pyridinediyl, wherein the phenylene and the pyridinediyl are optionally substituted on one or more ring carbon atoms by identical or different substituents R^{22}.

6. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in one or more of claims 1 to 5, wherein

R^3 is chosen from (C_1-C_6)-alkyl, (C_3-C_7)-cycloalkyl-C_uH_{2u}- and Het-C_vH_{2v}-, wherein u and v are chosen from 1 and 2, or R^3 is a residue of a saturated or unsaturated, 3-membered to 10-membered, monocyclic or bicyclic ring which comprises 0, 1 or 2 identical or different ring heteroatoms chosen from N, O and S, wherein one or two of the ring nitrogen atoms can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and one of the ring sulfur atoms can carry one or two oxo groups, and wherein the residue of a ring is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{31};

Het is a residue of a saturated, 4-membered to 6-membered, monocyclic heterocycle which comprises 1 ring heteroatom chosen from N, O and S and which is bonded via a ring carbon atom, wherein the residue of a heterocycle is optionally substituted by one or more identical or different substituents chosen from fluorine and (C_1-C_4)-alkyl.

7. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in one or more of claims 1 to 6, wherein

A is chosen from O and S;

X is chosen from (C_1-C_6)-alkanediyl, (C_2-C_6)-alkenediyl and (C_1-C_6)-alkanediyl-oxy;

Y is a 4-membered to 7-membered, saturated, monocyclic or bicyclic heterocycle which, in addition to the ring nitrogen atom depicted in formula I, comprises 0 or 1 ring heteroatoms chosen from N, O and S, wherein an additional ring nitrogen atom can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and a ring sulfur atom can carry one or two oxo groups, and wherein the heterocycle is optionally substituted on one or more ring carbon atoms by identical or different (C_1-C_4)-alkyl substituents;

R^2 is chosen from phenylene and pyridinediyl, wherein the phenylene and the pyridinediyl are optionally substituted on one or more ring carbon atoms by identical or different substituents R^{22};

R^3 is chosen from (C_1-C_6)-alkyl, (C_3-C_7)-cycloalkyl-C_uH_{2u}- and Het-C_vH_{2v}-, wherein u and v are chosen from 1 and 2, or R^3 is a residue of a saturated or unsaturated, 3-membered to 10-membered, monocyclic or bicyclic ring which comprises 0, 1 or 2 identical or different ring heteroatoms chosen from N, O and S, wherein one or two of the ring nitrogen atoms can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and one of the ring sulfur atoms can carry one or two oxo groups, and wherein the residue of a ring is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{31};

Het is a residue of a saturated, 4-membered to 6-membered, monocyclic heterocycle which comprises 1 ring heteroatom chosen from N, O and S and which is bonded via a ring carbon atom, wherein the residue of a heterocycle is optionally substituted by one or more identical or different substituents chosen from fluorine and (C_1-C_4)-alkyl.

8. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in one or more of claims 1 to 7, wherein

A is O;

X is chosen from (C_1-C_6)-alkanediyl and (C_1-C_6)-alkanediyl-oxy;

Y is a 4-membered to 6-membered, saturated, monocyclic heterocycle which does not comprise further ring heteroatoms in addition to the ring nitrogen atom depicted in

formula I, wherein the ring is optionally substituted on one or more ring carbon atoms by identical or different (C_1-C_4)-alkyl substituents;
R^1 is chosen from hydrogen and (C_1-C_4)-alkyl;
R^2 is phenylene which is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{22};
R^3 is chosen from (C_3-C_7)-cycloalkyl-C_uH_{2u}- and Het-C_vH_{2v}-, wherein u and v are chosen from 1 and 2, or R^3 is a residue of a saturated or unsaturated, 3-membered to 7-membered, monocyclic or bicyclic ring which comprises 0, 1 or 2 identical or different ring heteroatoms chosen from N, O and S, wherein one or two of the ring nitrogen atoms can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and one of the ring sulfur atoms can carry one or two oxo groups, and wherein the residue of a ring is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{31};
R^{22} is chosen from halogen, hydroxy, (C_1-C_4)-alkyl- and (C_1-C_4)-alkyloxy;
R^{31} is chosen from halogen, (C_1-C_4)-alkyl, (C_3-C_7)-cycloalkyl, hydroxy and (C_1-C_4)-alkyloxy;
Het is a residue of a saturated, 4-membered to 6-membered, monocyclic heterocycle which comprises 1 ring heteroatom chosen from O and S and which is bonded via a ring carbon atom, wherein the residue of a heterocycle is optionally substituted by one or more identical or different substituents chosen from fluorine and (C_1-C_4)-alkyl;
wherein all cycloalkyl groups, independently of each other and independently of any other substituents, are optionally substituted by one or more identical or different substituents chosen from fluorine and (C_1-C_4)-alkyl;
wherein all alkyl, alkanediyl, C_uH_{2u} and C_vH_{2v} groups, independently of each other and independently of any other substituents, are optionally substituted by one or more fluorine substituents.

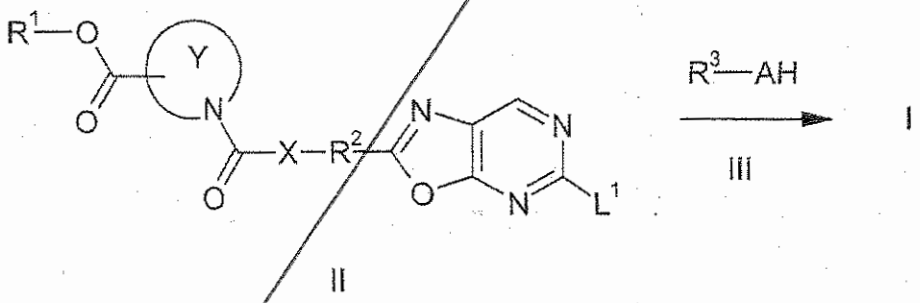
9. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in one or more of claims 1 to 8, wherein
A is O;

X is chosen from (C_1-C_6)-alkanediyl and (C_1-C_6)-alkanediyl-oxy;
Y is a 4-membered to 6-membered, saturated, monocyclic heterocycle which does not comprise further ring heteroatoms in addition to the ring nitrogen atom depicted in formula I, wherein the ring is optionally substituted on one or more ring carbon atoms by identical or different (C_1-C_4)-alkyl substituents;
R^1 is chosen from hydrogen and (C_1-C_4)-alkyl;
R^2 is phenylene which is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{22};
R^3 is a residue of a saturated or unsaturated, 3-membered to 7-membered, monocyclic ring which comprises 0 or 1 ring heteroatom chosen from N, O and S, wherein a ring nitrogen atom can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and a ring sulfur atom can carry one or two oxo groups, and wherein the residue of a ring is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{31};
R^{22} is chosen from halogen, hydroxy, (C_1-C_4)-alkyl- and (C_1-C_4)-alkyloxy;
R^{31} is chosen from halogen, (C_1-C_4)-alkyl, (C_3-C_7)-cycloalkyl, hydroxy and (C_1-C_4)-alkyloxy;
wherein all cycloalkyl groups, independently of each other and independently of any other substituents, are optionally substituted by one or more identical or different substituents chosen from fluorine and (C_1-C_4)-alkyl;
wherein all alkyl, alkanediyl, C_uH_{2u} and C_vH_{2v} groups, independently of each other and independently of any other substituents, are optionally substituted by one or more fluorine substituents.

10. A compound of the formula I, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in one or more of claims 1 to 9, chosen from
(S)-1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-2,6-dimethyl-phenoxy}-acetyl)-pyrrolidine-2-carboxylic acid,
(S)-1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-2,6-dimethyl-phenoxy}-propionyl)-pyrrolidine-2-carboxylic acid,

(S)-1-((E)-3-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-phenyl}-acryloyl)-pyrrolidine-2-carboxylic acid,
(S)-1-(3-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-phenyl}-propionyl)-pyrrolidine-2-carboxylic acid,
(S)-1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-2-methyl-phenoxy}-acetyl)-pyrrolidine-2-carboxylic acid,
(S)-1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-phenoxy}-acetyl)-pyrrolidine-2-carboxylic acid,
1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-phenoxy}-acetyl)-piperidine-4-carboxylic acid, and
(S)-1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-phenoxy}-propionyl)-pyrrolidine-2-carboxylic acid.

11. A process for the preparation of a compound of the formula I as claimed in any of claims 1 to 10, comprising reacting a compound of the formula II with a compound of the formula III,



II

wherein the groups A, X, Y, R^1, R^2 and R^3 in the compounds of the formulae II and III are defined as in the compounds of the formula I and additionally functional groups can be present in protected form or in the form of a precursor group, and L^1 is a halogen atom or a group of the formula -S(O)-Alk or -$S(O)_2$-Alk wherein Alk is a (C_1-C_4)-alkyl.

12. A pharmaceutical composition, comprising at least one compound of the formula I as claimed in any of claims 1 to 10 or a physiologically acceptable salt thereof, or a

physiologically acceptable solvate of any of them, and a pharmaceutically acceptable carrier.

13. A compound of the formula I as claimed in any of claims 1 to 10 or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, for use as a pharmaceutical.

14. A compound of the formula I as claimed in any of claims 1 to 10 or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, for the treatment of wound healing disorders.

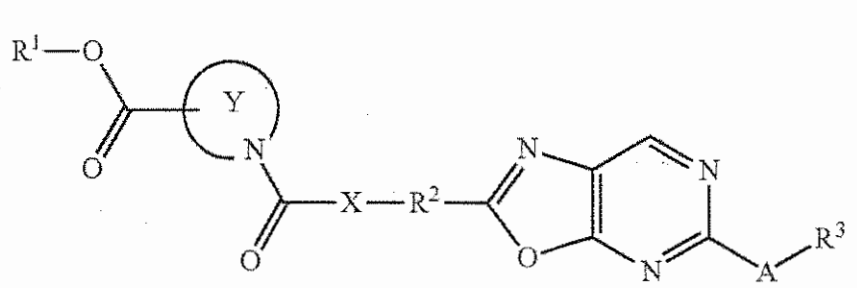
15. A compound of the formula I as claimed in any of claims 1 to 10 or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them for wound healing.

16. A compound of the formula I as claimed in any of claims 1 to 10 or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them for wound healing in diabetics.

17. A compound of the formula I as claimed in any of claims 1 to 10 or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, for the treatment of diabetic foot syndrome.

Claims

1. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them,



I

wherein

A is chosen from NH, O and S;

X is chosen from $(C_1\text{-}C_6)$-alkanediyl, $(C_2\text{-}C_6)$-alkenediyl, $(C_2\text{-}C_6)$-alkynediyl, $(C_3\text{-}C_7)$-cycloalkanediyl and $(C_1\text{-}C_6)$-alkanediyl-oxy, which all are optionally substituted by one or more identical or different substituents chosen from fluorine and hydroxy, wherein the oxygen atom of the $(C_1\text{-}C_6)$-alkanediyl-oxy group is bonded to the group R^2;

Y is 4-membered to 7-membered, saturated or partially unsaturated, monocyclic or bicyclic heterocycle which, in addition to the ring nitrogen atom depicted in formula I, comprises 0, 1, 2 or 3 identical or different ring heteroatoms chosen from N, O and S, wherein one or two of the additional ring nitrogen atoms can carry a hydrogen atom or a $(C_1\text{-}C_4)$-alkyl substituent and one of the ring sulfur atoms can carry one or two oxo groups, and wherein the heterocycle is optionally substituted on one or more ring carbon atoms by identical or different $(C_1\text{-}C_4)$-alkyl substituents;

R^1 is chosen from hydrogen, $(C_1\text{-}C_4)$-alkyl and $(C_3\text{-}C_7)$-cycloalkyl-C_zH_{2z}—, wherein z is chosen from 0, 1 and 2;

R^2 is chosen from phenylene and a divalent residue of an aromatic, 5-membered to 6-membered monocyclic heterocycle which comprises 1, 2 or 3 identical or different ring heteroatoms chosen from N, O and S, wherein one of the ring nitrogen atoms can carry a hydrogen atom or a substituent R^{21}, and wherein the phenylene and divalent residue of an aromatic heterocycle are optionally substituted on one or more ring carbon atoms by identical or different substituents R^{22};

R^3 is chosen from $(C_1\text{-}C_6)$-alkyl, $(C_2\text{-}C_6)$-alkenyl, $(C_2\text{-}C_6)$-alkynyl, $(C_3\text{-}C_7)$-cycloalkyl-C_uH_{2u}— and Het-C_vH_{2v}—, wherein u and v are chosen from 1 and 2, or R^3 is a residue of a saturated or unsaturated, 3-membered to 10-membered, monocyclic or

bicyclic ring which comprises 0, 1, 2, 3 or 4 identical or different ring heteroatoms chosen from N, O and S, wherein one or two of the ring nitrogen atoms can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and one or two of the ring sulfur atoms can carry one or two oxo groups, and wherein the residue of a ring is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{31};

R^{21} is chosen from (C_1-C_4)-alkyl, (C_3-C_7)-cycloalkyl-C_wH_{2w}— and oxy, wherein w is chosen from 0, 1 and 2;

R^{22} is chosen from halogen, hydroxy, (C_1-C_4)-alkyl-, (C_1-C_4)-alkyloxy, (C_1-C_4)-alkyl-$S(O)_m$—, amino, nitro, cyano, hydroxycarbonyl, (C_1-C_4)-alkyloxycarbonyl, aminocarbonyl and aminosulfonyl;

R^{31} is chosen from halogen, (C_1-C_4)-alkyl, (C_3-C_7)-cycloalkyl, hydroxy, (C_1-C_4)-alkyloxy, oxo, (C_1-C_4)-alkyl-$S(O)_m$—, amino, (C_1-C_4)-alkylamino, di((C_1-C_4)-alky)amino, (C_1-C_4)-alkylcarbonylamino, (C_1-C_4)-alkylsulfonylamino, nitro, cyano, (C_1-C_4)-alkylcarbonyl, aminosulfonyl, (C_1-C_4)-alkylaminosulfonyl and di((C_1-C_4)-alkyl)aminosulfonyl;

Het is a residue of a saturated, 4-membered to 7-membered, monocyclic heterocycle which comprises 1 or 2 identical or different ring heteroatoms chosen from N, O and S and which is bonded via a ring carbon atom, wherein the residue of a heterocycle is optionally substituted by one or more identical or different substituents chosen from fluorine and (C_1-C_4)-alkyl;

m is chosen from 0, 1 and 2, wherein all numbers m are independent of each other;

wherein all cycloalkyl and cycloalkanediyl groups, independently of each other and independently of any other substituents, are optionally substituted by one or more identical or different substituents chosen from fluorine and (C_1-C_4)-alkyl;

wherein all alkyl, alkanediyl, C_uH_{2u}, C_vH_{2v}, C_wH_{2w}, C_zH_{2z}, alkenyl, alkenediyl, alkynyl and alkynediyl groups, independently of each other and independently of any other substituents, are optionally substituted by one or more fluorine substituents.

2. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in claim 1, wherein A is chosen from O and S.

3. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in claim 1, wherein X is chosen from (C_1-C_6)-alkanediyl, (C_2-C_6)-alkenediyl and (C_1-C_6)-alkanediyl-oxy.

4. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in claim 1, wherein Y is a 4-membered to 7-membered, saturated, monocyclic or bicyclic heterocycle which, in addition to the ring nitrogen atom depicted in formula I, comprises 0 or 1 ring heteroatoms chosen from N, O and S, wherein an additional ring nitrogen atom can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and a ring sulfur atom can carry one or two oxo groups, and wherein the heterocycle is optionally substituted on one or more ring carbon atoms by identical or different (C_1-C_4)-alkyl substituents.

5. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in claim 1, wherein R^2 is chosen from phenylene and pyridinediyl, wherein the phenylene and the pyridinediyl are optionally substituted on one or more ring carbon atoms by identical or different substituents R^{22}.

6. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in claim 1, wherein

R^3 is chosen from (C_1-C_6)-alkyl, (C_3-C_7)-cycloalkyl-C_uH_{2u}— and Het-C_vH_{2v}—, wherein u and v are chosen from 1 and 2, or R^3 is a residue of a saturated or unsaturated, 3-membered to 10-membered, monocyclic or bicyclic ring which comprises 0, 1 or 2 identical or different ring heteroatoms chosen from N, O and S, wherein one or two of the ring nitrogen atoms can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and one of the ring sulfur atoms can carry one or two oxo groups, and wherein the residue of a ring is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{31};

Het is a residue of a saturated, 4-membered to 6-membered, monocyclic heterocycle which comprises 1 ring heteroatom chosen from N, O and S and which is bonded via a ring carbon atom, wherein the residue of a heterocycle is optionally substituted by one or more identical or different substituents chosen from fluorine and (C_1-C_4)-alkyl.

7. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in claim 1, wherein

A is chosen from O and S;

X is chosen from (C_1-C_6)-alkanediyl, (C_2-C_6)-alkenediyl and (C_1-C_6)-alkanediyl-oxy;

Y is a 4-membered to 7-membered, saturated, monocyclic or bicyclic heterocycle which, in addition to the ring nitrogen atom depicted in formula I, comprises 0 or 1 ring heteroatoms chosen from N, O and S, wherein an additional ring nitrogen atom can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and a ring sulfur atom can carry one or two oxo groups, and wherein the heterocycle is optionally substituted on one or more ring carbon atoms by identical or different (C_1-C_4)-alkyl substituents;

R^2 is chosen from phenylene and pyridinediyl, wherein the phenylene and the pyridinediyl are optionally substituted on one or more ring carbon atoms by identical or different substituents R^{22};

R^3 is chosen from (C_1-C_6)-alkyl, (C_3-C_7)-cycloalkyl-C_uH_{2u}— and Het-C_vH_{2v}—, wherein u and v are chosen from 1 and 2, or R^3 is a residue of a saturated or unsaturated, 3-membered to 10-membered, monocyclic or bicyclic ring which comprises 0, 1 or 2 identical or different ring heteroatoms chosen from N, O and S, wherein one or two of the ring nitrogen atoms can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and one of the ring sulfur atoms can carry one or two oxo groups, and wherein the residue of a ring is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{31};

Het is a residue of a saturated, 4-membered to 6-membered, monocyclic heterocycle which comprises 1 ring heteroatom chosen from N, O and S and which is bonded via a ring carbon atom, wherein the residue of a heterocycle is optionally substituted by one or more identical or different substituents chosen from fluorine and (C_1-C_4)-alkyl.

8. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in claim 1, wherein

A is O;

X is chosen from (C_1-C_6)-alkanediyl and (C_1-C_6)-alkanediyl-oxy;

Y is a 4-membered to 6-membered, saturated, monocyclic heterocycle which does not comprise further ring heteroatoms in addition to the ring nitrogen atom depicted in formula I, wherein the ring is optionally substituted on one or more ring carbon atoms by identical or different (C_1-C_4)-alkyl substituents;

R^1 is chosen from hydrogen and (C_1-C_4)-alkyl;

R^2 is phenylene which is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{22};

R^3 is chosen from (C_3-C_7)-cycloalkyl-C_uH_{2u}— and Het-C_vH_{2v}—, wherein u and v are

chosen from 1 and 2, or R^3 is a residue of a saturated or unsaturated, 3-membered to 7-membered, monocyclic or bicyclic ring which comprises 0, 1 or 2 identical or different ring heteroatoms chosen from N, O and S, wherein one or two of the ring nitrogen atoms can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and one of the ring sulfur atoms can carry one or two oxo groups, and wherein the residue of a ring is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{31};

R^{22} is chosen from halogen, hydroxy, (C_1-C_4)-alkyl- and (C_1-C_4)-alkyloxy;

R^{31} is chosen from halogen, (C_1-C_4)-alkyl, (C_3-C_7)-cycloalkyl, hydroxy and (C_1-C_4)-alkyloxy;

Het is a residue of a saturated, 4-membered to 6-membered, monocyclic heterocycle which comprises 1 ring heteroatom chosen from O and S and which is bonded via a ring carbon atom, wherein the residue of a heterocycle is optionally substituted by one or more identical or different substituents chosen from fluorine and (C_1-C_4)-alkyl;

wherein all cycloalkyl groups, independently of each other and independently of any other substituents, are optionally substituted by one or more identical or different substituents chosen from fluorine and (C_1-C_4)-alkyl;

wherein all alkyl, alkanediyl, C_uH_{2u} and C_vH_{2v} groups, independently of each other and independently of any other substituents, are optionally substituted by one or more fluorine substituents.

9. A compound of the formula I, in any of its stereoisomeric forms, or a mixture of stereoisomeric forms in any ratio, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in claim 1, wherein

A is O;

X is chosen from (C_1-C_6)-alkanediyl and (C_1-C_6)-alkanediyl-oxy;

Y is a 4-membered to 6-membered, saturated, monocyclic heterocycle which does not comprise further ring heteroatoms in addition to the ring nitrogen atom depicted in formula I, wherein the ring is optionally substituted on one or more ring carbon atoms by identical or different (C_1-C_4)-alkyl substituents;

R^1 is chosen from hydrogen and (C_1-C_4)-alkyl;

R^2 is phenylene which is optionally substituted on one or more ring carbon atoms by identical or different substituents R^{22};

R^3 is a residue of a saturated or unsaturated, 3-membered to 7-membered, monocyclic ring which comprises 0 or 1 ring heteroatom chosen from N, O and S, wherein a ring nitrogen atom can carry a hydrogen atom or a (C_1-C_4)-alkyl substituent and a ring sulfur atom can carry one or two oxo groups, and wherein the residue of a ring is

optionally substituted on one or more ring carbon atoms by identical or different substituents R^{31};

R^{22} is chosen from halogen, hydroxy, $(C_1$-$C_4)$-alkyl- and $(C_1$-$C_4)$-alkyloxy;

R^{31} is chosen from halogen, $(C_1$-$C_4)$-alkyl, $(C_3$-$C_7)$-cycloalkyl, hydroxy and $(C_1$-$C_4)$-alkyloxy;

wherein all cycloalkyl groups, independently of each other and independently of any other substituents, are optionally substituted by one or more identical or different substituents chosen from fluorine and $(C_1$-$C_4)$-alkyl;

wherein all alkyl, alkanediyl, C_uH_{2u} and C_vH_{2v} groups, independently of each other and independently of any other substituents, are optionally substituted by one or more fluorine substituents.

10. A compound of the formula I, or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, as claimed in claim 1, chosen from

(S)-1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-2,6-dimethyl-phenoxy}-acetyl)-pyrrolidine-2-carboxylic acid,

(S)-1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-2,6-dimethyl-phenoxy}-propionyl)-pyrrolidine-2-carboxylic acid,

(S)-1-((E)-3-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-phenyl}-acryloyl)-pyrrolidine-2-carboxylic acid,

(S)-1-(3-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-phenyl}-propionyl)-pyrrolidine-2-carboxylic acid,

(S)-1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-2-methyl-phenoxy}-acetyl)-pyrrolidine-2-carboxylic acid,

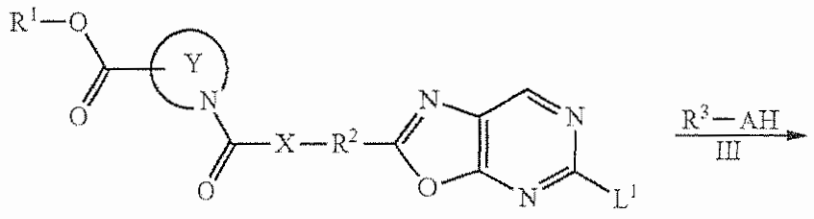
(S)-1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-phenoxy}-acetyl)-pyrrolidine-2-carboxylic acid,

1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-phenoxy}-acetyl)-piperidine-4-carboxylic acid, and

(S)-1-(2-{4-[5-(2-fluoro-phenoxy)-oxazolo[5,4-d]pyrimidin-2-yl]-phenoxy}-propionyl)-pyrrolidine-2-carboxylic acid.

11. A pharmaceutical composition, comprising at least one compound of the formula I as claimed in claim 1 or a physiologically acceptable salt thereof, or a physiologically acceptable solvate of any of them, and a pharmaceutically acceptable carrier.

12. A process for the preparation of a compound of the formula I as claimed in claim 1, comprising reacting a compound of the formula II with a compound of the formula III,



II I

wherein the groups A, X, Y, R^1, R^2 and R^3 in the compounds of the formulae II and III are defined as in the compounds of the formula I and additionally functional groups can be present in protected form or in the form of a precursor group, and L^1 is a halogen atom or a group of the formula —S(O)-Alk or —$S(O)_2$-Alk wherein Alk is a (C_1-C_4)-alkyl.

13. Use of a therapeutically effective amount of the pharmaceutical composition of claim 11, in the manufacture of a medicament for treating wound healing disorders.

14. Use of a therapeutically effective amount of the pharmaceutical composition of claim 11, in the manufacture of a medicament for wound healing.

15. Use of a therapeutically effective amount of the pharmaceutical composition of claim 11, in the manufacture of a medicament for wound healing in diabetics.

16. Use of a therapeutically effective amount of the pharmaceutical composition of claim 11, in the manufacture of a medicament for treating diabetic foot syndrome.