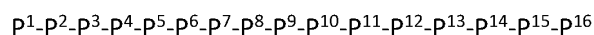


**ANTIMICROBIAL PEPTIDOMIMETICS**

The present invention is directed to peptidomimetics having antimicrobial activity, especially against Gram-negative bacteria. The peptidomimetics of the invention are  
5 compounds of the general formula (I),



(I)

and pharmaceutically acceptable salts thereof, as described herein below. The invention is also directed to therapeutic uses of the peptidomimetics for the treatment or  
10 prevention of bacterial infections and diseases related to bacterial infections and to non-therapeutic uses of the peptidomimetics for preserving or disinfecting foodstuffs, cosmetics, medicaments or other nutrient-containing materials. In addition, the present invention provides an efficient synthetic process by which these compounds can, if desired, be made in parallel library-format. Moreover, the peptidomimetics of the  
15 invention show improved antimicrobial activity, low or no hemolysis of red blood cells and reduced cytotoxicity.

There are limited treatment options for carbapenem-resistant *Enterobacteriaceae* (CRE) infections. Antibiotics that more frequently show in vitro activity against CRE include  
20 colistin, tigecycline and fosfomycin. However, the data on their effectiveness and clinical experience is limited. There are also more frequent adverse effects, rapid development of resistance during treatment, and increasing resistance globally. Colistin is frequently being used to treat CRE infections, but colistin resistance may develop in CRE-infected patients treated with colistin. Since 2015, the discovery of transferable plasmid-  
25 mediated colistin resistance genes (*mcr* 1-5) that can transmit colistin resistance more easily between bacteria has further increased the risk of colistin resistance spreading (Giamarellou H. *et al.*, *Antimicrob Agents Chemother.* **2013**, 57(5), 2388-90).

None of the recently approved antibiotics or those in late stage development have a  
30 satisfactory coverage of CRE. Notably, new beta-lactam combinations lack activity

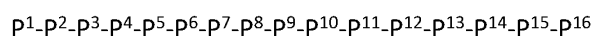
against metallo-beta-lactamase (MBL) producing organisms. Ceftazidime / Avibactam (CAZ-AVI), most commonly used novel antibiotic against CREs is not active against MBL organisms. Furthermore, reports of CAZ-AVI-resistant CRE strains that have developed resistance during treatment with CAZ-AVI, alone or in combination with other  
5 antibiotics, soon after the launch of CAZ-AVI. After these reports of concern, ECDC has issued a rapid risk assessment report regarding this issue in June 12, 2018. The new aminoglycoside plazomicin has safety warnings (nephrotoxicity, ototoxicity, neuromuscular blockade and fetal harm) in the prescribing information.

10 Thus, there is an on-going need for the development of antibiotics that can be used for the effective treatment of CRE infections.

The natural antimicrobial peptide thanatin, a 21-residue inducible insect defense peptide (Fehlbaum P. *et al.*, *Proc. Natl. Acad. Sci. USA* **1996**, 93, 1221-1225), is targeting  
15 the lipopolysaccharide transport protein LptA of Gram-negative bacteria, which leads to inhibition of LPS transport and outer membrane (OM) biogenesis (Vetterli S. U. *et al.*, *Sci. Adv.* **2018**; 4:eaau2634). Thanatin is active against carbapenem-resistant *Enterobacteriaceae* including pan resistant strains. These highly resistant organisms can cause a variety of infections including complicated urinary tract infections (cUTI),  
20 complicated intra-abdominal infections (cIAI), hospital- or ventilator-associated pneumonia (HAP/VAP), or bloodstream infections (BSI).

The present invention embraces a novel class of thanatin-derived peptidomimetics having 16 amino acid or amino acid derived residues and showing a narrow antimicrobial  
25 spectrum focused on *Enterobacteriaceae*. Despite their shorter sequences compared to thanatin, these novel thanatin-derived peptidomimetics surprisingly exhibit an improved antimicrobial activity, low or no hemolysis of red blood cells and reduced cytotoxicity.

In a first aspect, the invention provides a peptidomimetic compound of the general formula (I),



(I)

5 wherein

P<sup>1</sup> is 2OHVal, Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg, Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;

wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua) or by a tetramethyl guanidino (TMG) group;

P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys; Hyp, NalloThr;

15 P<sup>3</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg, Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;

P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg, Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;

20 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys, Lys(Me);

25 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl, Val(3OH);

P<sup>5</sup> is Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;

30 P<sup>6</sup> is Pra, Abu(4N<sub>3</sub>);

- Dab, Dap, <sup>D</sup>Dab, <sup>D</sup>Dap;  
 Cys, Hcy, NMeCys, Pen, <sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys, <sup>D</sup>Pen;  
 Asp, Glu, Hgl, <sup>D</sup>Asp, <sup>D</sup>Glu, <sup>D</sup>Hgl;
- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
 5 Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
 NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 2OHDab, Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab,  
 10 Nlys, Norn, Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg,  
 NMeLys;  
 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>8</sup> is Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;
- 15 P<sup>9</sup> is Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;  
 Cit;
- P<sup>10</sup> is alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dab(iPr), <sup>D</sup>Dap, <sup>D</sup>Dap(iPr), <sup>D</sup>Lys, <sup>D</sup>Lys(iPr), <sup>D</sup>Orn, <sup>D</sup>Orn(iPr), <sup>D</sup>Arg; Group E
- 20 P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
 Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
 NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 25 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;  
 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>13</sup> is Pra, Abu(4N<sub>3</sub>);  
 Dab, Dap, <sup>D</sup>Dab, <sup>D</sup>Dap;  
 30 Cys, Hcy, NMeCys, Pen, <sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys, <sup>D</sup>Pen;

Asp, Glu, Hgl, <sup>D</sup>Asp, <sup>D</sup>Glu, <sup>D</sup>Hgl;

P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;

P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
NMeVal, Nva;

Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;

P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
NMeVal, Nva;

Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;

or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,

wherein

Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if  
present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
<sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys or <sup>D</sup>Pen at P<sup>6</sup>, if present, and <sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys or <sup>D</sup>Pen at P<sup>13</sup>,  
if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a  
lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
<sup>D</sup>Dab or <sup>D</sup>Dap at P<sup>6</sup>, if present, and <sup>D</sup>Asp, <sup>D</sup>Glu or <sup>D</sup>Hgl at P<sup>13</sup>, if present, optionally form  
a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a  
lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
<sup>D</sup>Asp, <sup>D</sup>Glu or <sup>D</sup>Hgl at P<sup>6</sup>, if present, and <sup>D</sup>Dab or <sup>D</sup>Dap at P<sup>13</sup>, if present, optionally form

a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

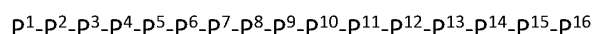
Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole

5 bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least three amino acid residues among the four amino acid residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys.

10

In a first aspect, the invention also provides a peptidomimetic compound of the general formula (I),



(I)

15 wherein

P<sup>1</sup> is 2OHVal, Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg, Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, or Nva;

wherein the N-terminal amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua) or by a tetramethyl guanidino (TMG) group;

20

P<sup>2</sup> is Pro, Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys, or Hyp;

25

P<sup>3</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg, Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, or Nva;

P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg, Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva,

30

- Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)guanidine),  
 Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys,
- 5     alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>5</sup> is     Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
           Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, or Nphe;
- P<sup>6</sup> is     Pra, Abu(4N<sub>3</sub>),  
           Dab, Dap, <sup>D</sup>Dab, <sup>D</sup>Dap,
- 10     Cys, Hcy, NMeCys, Pen, <sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys, <sup>D</sup>Pen,  
           Asp, Glu, Hgl, <sup>D</sup>Asp, <sup>D</sup>Glu, or <sup>D</sup>Hgl;
- P<sup>7</sup> is     Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
           Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
           NMeVal, Nva,
- 15     Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
           Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
           2OHDab, Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn,  
           Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys,  
           alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- 20     P<sup>8</sup> is     Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)guanidine),  
               Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, or NMeLys;
- P<sup>9</sup> is     Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)guanidine),  
           Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, or NMeLys;
- P<sup>10</sup> is     alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- 25     P<sup>11</sup> is     <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, <sup>D</sup>Agp, <sup>D</sup>Agb, or <sup>D</sup>Arg;
- P<sup>12</sup> is     Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
           Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
           NMeVal, Nva,  
           Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
           Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,
- 30

- Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)guanidine),  
 Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys,  
 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>13</sup> is Pra, Abu(4N<sub>3</sub>),  
 5 Dab, Dap, <sup>D</sup>Dab, <sup>D</sup>Dap,  
 Cys, Hcy, NMeCys, Pen, <sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys, <sup>D</sup>Pen,  
 Asp, Glu, Hgl, <sup>D</sup>Asp, <sup>D</sup>Glu, or <sup>D</sup>Hgl;
- P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
 10 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)guanidine),  
 Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys,  
 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
 Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
 15 NMeVal, Nva,  
 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)guanidine),  
 Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys,  
 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
 20 Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
 NMeVal, Nva,  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, or Nphe;  
 or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof;
- 25 wherein  
 Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if  
 present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
<sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys or <sup>D</sup>Pen at P<sup>6</sup>, if present, and <sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys or <sup>D</sup>Pen at P<sup>13</sup>,  
 if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 30 Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a

- lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
<sup>D</sup>Dab or <sup>D</sup>Dap at P<sup>6</sup>, if present, and <sup>D</sup>Asp, <sup>D</sup>Glu or <sup>D</sup>Hgl at P<sup>13</sup>, if present, optionally form  
 a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a  
 5 lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
<sup>D</sup>Asp, <sup>D</sup>Glu or <sup>D</sup>Hgl at P<sup>6</sup>, if present, and <sup>D</sup>Dab or <sup>D</sup>Dap at P<sup>13</sup>, if present, optionally form  
 a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole  
 bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 10 Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole  
 bridge between P<sup>6</sup> and P<sup>13</sup>;  
 with the proviso that at least two amino acid residues among the three amino acid  
 residues at positions P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Agb,  
 Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>),  
 15 Pro((4S)NH<sub>2</sub>), Arg, or NMeLys.

- A preferred embodiment of the first aspect relates to a compound, wherein  
 P<sup>1</sup> is 2OHVal, Val, NMeVal, Abu, tBuGly;  
 wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua)  
 20 or by a tetramethyl guanidino (TMG) group;  
 P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;  
 Hyp, NalloThr;  
 25 P<sup>3</sup> is Hle, Ile, Leu, Nle;  
 P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;

- Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
Orn, Orn(iPr), Arg, NMeLys, Lys(Me);  
alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl, Val(3OH);
- P<sup>5</sup> is Phe, His, Trp, Tyr;
- 5 P<sup>6</sup> is Pra, Abu(4N<sub>3</sub>);  
Dab, Dap;  
Cys, Hcy, NMeCys, Pen;  
Asp, Glu, Hgl;
- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
10 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
Orn, Orn(iPr), Arg, NMeLys;
- 15 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>8</sup> is Agb, Har, Arg;
- P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, Arg, Dab(iPr);  
Cit;
- P<sup>10</sup> is alloThr, Hse, Ser, Thr;
- 20 P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, <sup>D</sup>Arg, <sup>D</sup>Dab(iPr);
- P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;
- 25 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
Orn, Orn(iPr), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>13</sup> is Pra, Abu(4N<sub>3</sub>);  
Dab, Dap;
- 30 Cys, Hcy, NMeCys, Pen;

Asp, Glu, Hgl;

P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
5 Orn, Orn(iPr), Arg, NMeLys;

alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;

P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
10 Orn, Orn(iPr), Arg, NMeLys;

alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;

P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
15 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;

or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,

wherein

Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if  
present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

20 Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a  
lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a  
lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole  
25 bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole  
bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least three amino acid residues among the four amino acid  
residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from

Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys.

Another preferred embodiment of the first aspect relates to a compound, wherein

- 5 P<sup>1</sup> is 2OHVal, Val, or NMeVal;  
 wherein the N-terminal amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua) or by a tetramethyl guanidino (TMG) group;
- P<sup>2</sup> is Pro,  
 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)guanidine),  
 10 Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys, or  
 Hyp;
- P<sup>3</sup> is Hle, Ile, Leu, or Nle;
- P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva,  
 15 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys,  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>5</sup> is Phe, His, Trp, or Tyr;
- 20 P<sup>6</sup> is Pra, Abu(4N<sub>3</sub>),  
 Dab, Dap,  
 Cys, Hcy, NMeCys, Pen,  
 Asp, Glu, or Hgl;
- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 25 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva,  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys,  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- 30 P<sup>8</sup> is Har, or Arg;

- P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, or Arg;
- P<sup>10</sup> is alloThr, Hse, Ser, or Thr;
- P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, <sup>D</sup>Agp, <sup>D</sup>Agb, or <sup>D</sup>Arg;
- P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 5 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva,  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys,  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- 10 P<sup>13</sup> is Pra, Abu(4N<sub>3</sub>),  
 Dab, Dap,  
 Cys, Hcy, NMeCys, Pen,  
 Asp, Glu, or Hgl;
- P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 15 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys,  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 20 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva,  
 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys,  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 25 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva,  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, or Nphe;
- or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof;
- wherein
- Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if  
 present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- 30 Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a

lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole

5 bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least two amino acid residues among the three amino acid residues at positions P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Agb,

10 Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, or NMeLys.

A more preferred embodiment of the first aspect relates to a compound, wherein

P<sup>1</sup> is 2OHVal, Val, NMeVal, Abu, tBuGly;

wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua)

15 or by a tetramethyl guanidino (TMG) group;

P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys; Hyp, NalloThr;

20 P<sup>3</sup> is Ile;

P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle, Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva; Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe; 25 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys, Lys(Me); alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl, Val(3OH);

P<sup>5</sup> is Phe, His, Trp, Tyr;

P<sup>6</sup> is Dab, Dap;

30 Cys, Pen;

- Asp, Glu;
- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle, Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva; Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),
- 5 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys; alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>8</sup> is Arg;
- 10 P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, Arg, Dab(iPr); Cit;
- P<sup>10</sup> is alloThr, Hse, Ser, Thr;
- P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, <sup>D</sup>Arg, <sup>D</sup>Dab(iPr);
- P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,
- 15 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva; Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;
- 20 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>13</sup> is Dab, Dap; Cys, Pen; Asp, Glu;
- P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),
- 25 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe; Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys; alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,
- 30 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;

- Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;  
 P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 5 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,  
 wherein  
 10 Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a disulfide  
 bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Dab or Dap at P<sup>6</sup>, if present, and Asp or Glu at P<sup>13</sup>, if present, optionally form a lactam  
 bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Asp or Glu at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam  
 15 bridge between P<sup>6</sup> and P<sup>13</sup>;  
 with the proviso that at least three amino acid residues among the four amino acid  
 residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
 Orn(iPr), Arg, NMeLys.  
 20  
 Another more preferred embodiment of the first aspect relates to a compound, wherein  
 P<sup>1</sup> is 2OHVal, Val, or NMeVal;  
 wherein the N-terminal amino group of P<sup>1</sup> is optionally replaced by a guanidino  
 group (Gua) or by a tetramethyl guanidino (TMG) group;  
 25 P<sup>2</sup> is Pro,  
 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)guanidine),  
 Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys, or  
 Hyp;  
 P<sup>3</sup> is Ile;

- P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle, Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva, Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,
- 5 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys, alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>5</sup> is Phe, His, Trp, or Tyr;
- P<sup>6</sup> is Dab, Dap, Cys, Pen,
- 10 Asp, or Glu;
- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle, Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva, Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,
- 15 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys, alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>8</sup> is Arg;
- P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, or Arg;
- P<sup>10</sup> is alloThr, Hse, Ser, or Thr;
- 20 P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, <sup>D</sup>Agp, <sup>D</sup>Agb, or <sup>D</sup>Arg;
- P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle, Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva, Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,
- 25 Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys, alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>13</sup> is Dab, Dap, Cys, Pen, Asp, or Glu;

- P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe, Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys, alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- 5 P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle, Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva, Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys, alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- 10 P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle, Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva, Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, or Nphe;
- or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof;
- wherein
- 15 Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- Dab or Dap at P<sup>6</sup>, if present, and Asp or Glu at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- Asp or Glu at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam
- 20 bridge between P<sup>6</sup> and P<sup>13</sup>;
- with the proviso that at least two amino acid residues among the three amino acid residues at positions P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Agb, Agp, Dab, Dap, Har, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, or NMeLys.
- 25 A further embodiment of the first aspect relates to a compound, wherein
- P<sup>1</sup> is 2OHVal, Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile, Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva, wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua) or by a tetramethyl guanidino (TMG) group;
- 30 P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic;

- Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;  
Hyp, NalloThr;
- P<sup>3</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile,  
5 Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;
- P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile,  
Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;
- 10 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys, Lys(Me);  
alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl,  
Val(3OH);
- P<sup>5</sup> is Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
15 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;
- P<sup>6</sup> is Pra, Abu(4N<sub>3</sub>);]  
Dab, Dap;  
Cys, Hcy, NMeCys, Pen;  
Asp, Glu, Hgl;
- 20 P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile,  
Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
25 Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>8</sup> is Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, NMeLys;
- P<sup>9</sup> is Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;
- 30 Cit;

- P<sup>10</sup> is   alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;  
P<sup>11</sup> is   <sup>D</sup>Dab, <sup>D</sup>Dab(iPr), <sup>D</sup>Dap, <sup>D</sup>Dap(iPr), <sup>D</sup>Lys, <sup>D</sup>Lys(iPr), <sup>D</sup>Orn, <sup>D</sup>Orn(iPr), <sup>D</sup>Arg;  
P<sup>12</sup> is   Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile,  
Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;  
5       Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Tyr(Phenyl), Trp, Tyr, 4Thz,  
Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;  
10   P<sup>13</sup> is   Pra, Abu(4N<sub>3</sub>);  
Dab, Dap;  
Cys, Hcy, NMeCys, Pen;  
Asp, Glu, Hgl;  
P<sup>14</sup> is   Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
15       Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;  
P<sup>15</sup> is   Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile,  
20       Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;  
Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;  
P<sup>16</sup> is   Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile,  
25       Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,  
wherein  
30   Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if

- present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a  
 lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a  
 5 lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole  
 bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole  
 bridge between P<sup>6</sup> and P<sup>13</sup>;  
 10 with the proviso that at least three amino acid residues among the four amino acid  
 residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
 Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys.
- 15 Another further embodiment of the first aspect relates to a compound, wherein  
 P<sup>1</sup> is 2OHVal, Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea,  
 Gly, Ile, Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, or Nva;  
 wherein the N-terminal amino group of P<sup>1</sup> is optionally replaced by a guanidino  
 group (Gua) or by a tetramethyl guanidino (TMG) group;
- 20 P<sup>2</sup> is Pro,  
 Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, NMeLys,  
 or  
 Hyp;
- P<sup>3</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile,  
 25 Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, or Nva,
- P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile,  
 Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva,  
 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
 30 Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, NMeLys,

- alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>5</sup> is Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, or Nphe;
- P<sup>6</sup> is Pra, Abu(4N<sub>3</sub>),  
5 Dab, Dap,  
Cys, Hcy, NMeCys, Pen,  
Asp, Glu, or Hgl;
- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile,  
Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva,  
10 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, NMeLys,  
alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>8</sup> is Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, or  
15 NMeLys;
- P<sup>9</sup> is Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, or  
NMeLys;
- P<sup>10</sup> is alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, or <sup>D</sup>Arg;
- 20 P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile,  
Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva,  
Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Tyr(Phenyl), Trp, Tyr, 4Thz,  
Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, NMeLys,  
25 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>13</sup> is Pra, Abu(4N<sub>3</sub>),  
Dab, Dap,  
Cys, Hcy, NMeCys, Pen,  
Asp, Glu, or Hgl;

- P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe, Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, NMeLys, alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- 5 P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile, Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva, Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, NMeLys, alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- 10 P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile, Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva, Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, or Nphe;
- or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof;
- wherein
- 15 Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a
- 20 lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>;
- 25 with the proviso that at least two amino acid residues among the three amino acid residues at positions P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, or NMeLys.

A preferred embodiment of the further embodiment of the first aspect relates to a compound, wherein

P<sup>1</sup> is 2OHVal, Val, NMeVal, Abu, tBuGly;  
 wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua)  
 5 or by a tetramethyl guanidino (TMG) group;

P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
 Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;  
 Hyp, NalloThr;

10 P<sup>3</sup> is Hle, Ile, Leu, Nle;

P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly,  
 tBuAla, Val, NMeAla, NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;

15 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
 Orn(iPr), Arg, NMeLys, Lys(Me);  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl, Val(3OH);

P<sup>5</sup> is Phe, His, Trp, Tyr;

P<sup>6</sup> is Pra, Abu(4N<sub>3</sub>);

20 Dab, Dap;  
 Cys, Hcy, NMeCys, Pen;  
 Asp, Glu, Hgl;

P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly,  
 tBuAla, Val, NMeAla, NMeVal, Nva;

25 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
 Orn(iPr), Arg, NMeLys;  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;

30 P<sup>8</sup> is Agb, Har, Arg;

- P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, Arg, Dab(iPr);  
Cit;
- P<sup>10</sup> is alloThr, Hse, Ser, Thr;
- P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, <sup>D</sup>Arg, <sup>D</sup>Dab(iPr);
- 5 P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
10 Orn(iPr), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>13</sup> is Pra, Abu(4N<sub>3</sub>);  
Dab, Dap;  
Cys, Hcy, NMeCys, Pen;  
15 Asp, Glu, Hgl;
- P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;  
20 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;  
25 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
30 or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,

wherein

Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a  
5 lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

10 Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least three amino acid residues among the four amino acid residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from

Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
15 Orn(iPr), Arg, NMeLys.

A preferred embodiment of another further embodiment of the first aspect relates to a compound, wherein

P<sup>1</sup> is 2OHVal, Val, or NMeVal;

20 wherein the N-terminal amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua) or by a tetramethyl guanidino (TMG) group;

P<sup>2</sup> is Pro,

Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, NMeLys,  
or

25 Hyp;

P<sup>3</sup> is Hle, Ile, Leu, or Nle;

P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva,

Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
30 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,

- Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys,  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>5</sup> is Phe, His, Trp, or Tyr;
- P<sup>6</sup> is Pra, Abu(4N<sub>3</sub>),
- 5 Dab, Dap,  
 Cys, Hcy, NMeCys, Pen,  
 Asp, Glu, or Hgl;
- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly,  
 tBuAla, Val, NMeAla, NMeVal, Nva,
- 10 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
 Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys,  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>8</sup> is Har, or Arg;
- 15 P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, or Arg;
- P<sup>10</sup> is alloThr, Hse, Ser, or Thr;
- P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, or <sup>D</sup>Arg;
- P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly,  
 tBuAla, Val, NMeAla, NMeVal, Nva,
- 20 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Tyr(Phenyl), Trp, Tyr, 4Thz,  
 Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,  
 Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys,  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>13</sup> is Pra, Abu(4N<sub>3</sub>),
- 25 Dab, Dap,  
 Cys, Hcy, NMeCys, Pen,  
 Asp, Glu, or Hgl;
- P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,
- 30 Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys,

- alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva, Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys,
- 5 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva, Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, or Nphe;
- 10 or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof;
- wherein
- Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a
- 15 lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- 20 Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>;
- with the proviso that at least two amino acid residues among the three amino acid residues at positions P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, or NMeLys.
- 25
- A more preferred embodiment of the further embodiment of the first aspect relates to a compound, wherein
- P<sup>1</sup> is 2OHVal, Val, NMeVal, Abu, tBuGly;
- wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua)
- 30 or by a tetramethyl guanidino (TMG) group;

- P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
 Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;  
 Hyp, NalloThr;
- 5 P<sup>3</sup> is Ile;
- P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly,  
 tBuAla, Val, NMeAla, NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;
- 10 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
 Orn(iPr), Arg, NMeLys; Lys(Me);  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl, Val(3OH);
- P<sup>5</sup> is Phe, His, Trp, Tyr;
- P<sup>6</sup> is Dab, Dap;
- 15 Cys, Pen;  
 Asp, Glu;
- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly,  
 tBuAla, Val, NMeAla, NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;
- 20 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
 Orn(iPr), Arg, NMeLys;  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>8</sup> is Arg;
- 25 P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, Arg, Dab(iPr);  
 Cit;
- P<sup>10</sup> is alloThr, Hse, Ser, Thr;
- P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, <sup>D</sup>Arg, <sup>D</sup>Dab(iPr);
- P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly,  
 tBuAla, Val, NMeAla, NMeVal, Nva;
- 30

- Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;
- 5       alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>13</sup> is   Dab, Dap;  
           Cys, Pen;  
           Asp, Glu;
- P<sup>14</sup> is   Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
 10       Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
           Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;  
           alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>15</sup> is   Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly,  
 15       tBuAla, Val, NMeAla, NMeVal, Nva;  
           Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;  
           alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>16</sup> is   Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly,  
 20       tBuAla, Val, NMeAla, NMeVal, Nva;  
           Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;
- or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,  
 wherein
- 25   Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
      Dab or Dap at P<sup>6</sup>, if present, and Asp or Glu at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
      Asp or Glu at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam  
 30   bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least three amino acid residues among the four amino acid residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys.

5

A more preferred embodiment of the another further embodiment of the first aspect relates to a compound, wherein

P<sup>1</sup> is 2OHVal, Val, or NMeVal;

wherein the N-terminal amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua) or by a tetramethyl guanidino (TMG) group;

10

P<sup>2</sup> is Pro,

Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, NMeLys, or

Hyp;

15

P<sup>3</sup> is Ile;

P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva

Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,

20

Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys, alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;

P<sup>5</sup> is Phe, His, Trp, or Tyr;

P<sup>6</sup> is Dab, Dap,

Cys, Pen,

25

Asp, or Glu;

P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva,

Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,

30

Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys,

alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;

P<sup>8</sup> is Arg;

P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, or Arg;

P<sup>10</sup> is alloThr, Hse, Ser, or Thr;

5 P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, or <sup>D</sup>Arg;

P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva,

Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,

10 Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys, alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;

P<sup>13</sup> is Dab, Dap,

Cys, Pen,

Asp, or Glu;

15 P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe,

Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys, alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;

P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, 20 tBuAla, Val, NMeAla, NMeVal, Nva,

Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, NMeLys, alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;

P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva,

25 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, or Nphe;

or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof;

wherein

Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a disulfide

30 bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Dab or Dap at P<sup>6</sup>, if present, and Asp or Glu at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Asp or Glu at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>;

- 5 with the proviso that at least two amino acid residues among the three amino acid residues at positions P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Arg, or NMeLys.

A particular embodiment of the first aspect relates to a compound, wherein

- 10 P<sup>1</sup> is Val, 2OHVal, NMeVal, Gua-Val, TMG-Val, Abu, or tBuGly;  
 P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic, Pro((4R)NH<sub>2</sub>), Ndab, NalloThr, or Hyp;  
 P<sup>3</sup> is Ile;  
 P<sup>4</sup> is Ile, Thr, Phe, Dab, Orn, Arg, Tyr, Leu, Asn, Lys, Lys(Me), Dap, Val(3OH), or alloThr;  
 15 P<sup>5</sup> is Trp or Tyr;  
 P<sup>6</sup> is Cys, Pen, Asp, or Pra;  
 P<sup>7</sup> is Asn, Ala, Leu, Ile, Ser, Thr, Lys, Dap, Glu, or His;  
 P<sup>8</sup> is Arg;  
 P<sup>9</sup> is Arg, Dab, Dab(iPr), Lys, or Cit;  
 20 P<sup>10</sup> is Ser or Thr;  
 P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Orn, <sup>D</sup>Lys, <sup>D</sup>Arg, or <sup>D</sup>Dab(iPr);  
 P<sup>12</sup> is Lys, Ile, Ser, Tyr, Trp, Asn, Dab, Orn, or Cit;  
 P<sup>13</sup> is Cys, Pen, Dab, or Abu(4N<sub>3</sub>);  
 P<sup>14</sup> is Dab, Dab(iPr), Lys, Gln, Ser, or Tyr;  
 25 P<sup>15</sup> is Arg, Thr, Leu, Ser, Dab, Lys, Orn, or Orn(iPr); and  
 P<sup>16</sup> is Nle, Cha, or Tyr;

or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,

wherein Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>, or wherein

- 30 Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge

between P<sup>6</sup> and P<sup>13</sup>, or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least three amino acid residues among the four amino acid  
 5 residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Dab, Lys, Arg, or Dab(iPr) at P<sup>9</sup>, Lys, Dab, or Orn at P<sup>12</sup>, Dab, Dab(iPr), or Lys at P<sup>14</sup> and Arg, Dab, Lys, Orn or Orn(iPr) at P<sup>15</sup>.

Another particular embodiment of the first aspect relates to a compound, wherein

- 10 P<sup>1</sup> is Val, 2OHVal, NMeVal, Gua-Val, or TMG-Val;
- P<sup>2</sup> is Pro, Pro((4R)NH<sub>2</sub>), Ndab, or Hyp;
- P<sup>3</sup> is Ile;
- P<sup>4</sup> is Ile, Thr, Phe, Dab, Arg, Tyr, Leu, Asn, Lys, Dap, or alloThr;
- P<sup>5</sup> is Trp or Tyr;
- 15 P<sup>6</sup> is Cys, Pen, Asp, or Pra;
- P<sup>7</sup> is Asn, Ala, Leu, Ile, Ser, Thr, Lys, Dap, Glu, or His;
- P<sup>8</sup> is Arg;
- P<sup>9</sup> is Arg, Dab, or Lys;
- P<sup>10</sup> is Ser or Thr;
- 20 P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Orn, <sup>D</sup>Lys, or <sup>D</sup>Arg;
- P<sup>12</sup> is Lys, Ile, Ser, Tyr, Trp, Asn, Dab, or Cit;
- P<sup>13</sup> is Cys, Pen, Dab, or Abu(4N<sub>3</sub>);
- P<sup>14</sup> is Dab, Gln, or Tyr;
- P<sup>15</sup> is Arg, Thr, Leu, Ser, Dab, Lys, or Orn; and
- 25 P<sup>16</sup> is Nle, Cha, or Tyr;

or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof;

wherein Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge

30 between P<sup>6</sup> and P<sup>13</sup>; or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>;  
 with the proviso that at least two amino acid residues among the three amino acid residues at positions P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Lys or  
 5 Dab at P<sup>12</sup>, Dab at P<sup>14</sup> and Arg, Dab, Lys, or Orn at P<sup>15</sup>.

A particularly preferred embodiment of the first aspect relates to a compound, wherein  
 P<sup>1</sup> is Val, NMeVal, Gua-Val, TMG-Val, or Abu;  
 P<sup>2</sup> is Pro, Pro(4R)OMe, Pro(3,4dehydro), Pic, Pro((4R)NH<sub>2</sub>), Ndab, NalloThr, or Hyp;  
 10 P<sup>3</sup> is Ile;  
 P<sup>4</sup> is Ile, Thr, Phe, Dab, Arg, Val(3OH), or Tyr;  
 P<sup>5</sup> is Tyr;  
 P<sup>6</sup> is Cys, Pen, or Asp;  
 P<sup>7</sup> is Asn, Leu, Ile, Ser, Dap, or His;  
 15 P<sup>8</sup> is Arg;  
 P<sup>9</sup> is Arg, Lys, Dab, or Dab(iPr);  
 P<sup>10</sup> is Ser or Thr;  
 P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dab(iPr), or <sup>D</sup>Arg;  
 P<sup>12</sup> is Lys, Ile, Ser, Dab, Orn, or *Cit*;  
 20 P<sup>13</sup> is Cys, Pen, or Dab;  
 P<sup>14</sup> is Dab, Dab(iPr), Lys, Gln, Ser, or Tyr;  
 P<sup>15</sup> is Arg, Dab, Orn, Orn(iPr), Ser, or Thr;  
 P<sup>16</sup> is Nle, Cha, or Tyr;  
 or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,  
 25 wherein Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>, or wherein  
 Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>;  
 with the proviso that at least three amino acid residues among the four amino acid  
 30 residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from

Dab, Lys, Arg, or Dab(iPr) at P<sup>9</sup>, Lys, Orn, or Dab at P<sup>12</sup>, Lys, Dab or Dab(iPr) at P<sup>14</sup> and Arg, Dab, Orn, or Orn(iPr) at P<sup>15</sup>.

Another particularly preferred embodiment of the first aspect relates to a compound,

5 wherein

P<sup>1</sup> is Val, NMeVal, Gua-Val, or TMG-Val;

P<sup>2</sup> is Pro, Pro((4R)NH<sub>2</sub>), Ndab, or Hyp;

P<sup>3</sup> is Ile;

P<sup>4</sup> is Ile, Thr, Phe, Arg, or Tyr;

10 P<sup>5</sup> is Tyr;

P<sup>6</sup> is Cys, Pen, or Asp;

P<sup>7</sup> is Asn, Leu, Ser, Dap, or His;

P<sup>8</sup> is Arg;

P<sup>9</sup> is Arg, or Dab;

15 P<sup>10</sup> is Ser or Thr;

P<sup>11</sup> is <sup>D</sup>Dab, or <sup>D</sup>Arg;

P<sup>12</sup> is Lys, or Dab;

P<sup>13</sup> is Cys, Pen, or Dab;

P<sup>14</sup> is Dab, Gln, or Tyr;

20 P<sup>15</sup> is Arg, Dab, or Orn;

P<sup>16</sup> is Nle, Cha, or Tyr;

or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof;

wherein Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

25 Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least two amino acid residues among the three amino acid residues at positions P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Lys or Dab at P<sup>12</sup>, Dab at P<sup>14</sup> and Arg, Dab, or Orn at P<sup>15</sup>.

Another particularly preferred embodiment of the first aspect relates to a compound, wherein

P<sup>1</sup> is 2OHVal, Gua-Val, or TMG-Val;

P<sup>2</sup> is Pro, Pro((4R)NH<sub>2</sub>), or Hyp;

5 P<sup>3</sup> is Ile;

P<sup>4</sup> is Ile, Thr, Dab, or Orn;

P<sup>5</sup> is Tyr;

P<sup>6</sup> is Cys, Pen, Asp or Pra;

P<sup>7</sup> is Ile, Asn, or Thr;

10 P<sup>8</sup> is Arg;

P<sup>9</sup> is Lys, Arg, Dab, or Dab(iPr);

P<sup>10</sup> is Ser, or Thr;

P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dab(iPr), or <sup>D</sup>Dap;

P<sup>12</sup> is Lys, Ile, Asn, Ser, Tyr, Orn, or Cit;

15 P<sup>13</sup> is Cys, Dab, or Abu(4N<sub>3</sub>);

P<sup>14</sup> is Dab, Dab(iPr), Lys, or Ser;

P<sup>15</sup> is Arg, Dab, Orn; Orn(iPr), Ser, or Thr;

P<sup>16</sup> is Nle, or Tyr;

or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,

20 wherein Cys or Pen at P<sup>6</sup>, if present, and Cys at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>, or wherein

Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole

25 bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least three amino acid residues among the four amino acid residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from

Dab, Lys, Arg, or Dab(iPr) at P<sup>9</sup>, Lys, or Orn at P<sup>12</sup>, Lys, Dab or Dab(iPr) at P<sup>14</sup> and Arg, Dab, Orn, or Orn(iPr) at P<sup>15</sup>.

Still another particularly preferred embodiment of the first aspect relates to a compound, wherein

P<sup>1</sup> is 2OHVal, Gua-Val, or TMG-Val;

P<sup>2</sup> is Pro, or Hyp;

5 P<sup>3</sup> is Ile;

P<sup>4</sup> is Ile, Thr, or Dab;

P<sup>5</sup> is Tyr;

P<sup>6</sup> is Cys, Pen, Asp or Pra;

P<sup>7</sup> is Asn, or Thr;

10 P<sup>8</sup> is Arg;

P<sup>9</sup> is Lys, Arg, or Dab;

P<sup>10</sup> is Thr;

P<sup>11</sup> is <sup>D</sup>Dab, or <sup>D</sup>Dap;

P<sup>12</sup> is Lys, Ile, Asn, Ser, or Tyr;

15 P<sup>13</sup> is Cys, Dab, or Abu(4N<sub>3</sub>);

P<sup>14</sup> is Dab;

P<sup>15</sup> is Arg, Dab, Orn; Ser, or Thr;

P<sup>16</sup> is Nle, or Tyr;

or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof;

20 wherein Cys or Pen at P<sup>6</sup>, if present, and Cys at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole  
25 bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least two amino acid residues among the three amino acid residues at positions P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Lys at P<sup>12</sup>, Dab at P<sup>14</sup> and Arg, Dab, or Orn at P<sup>15</sup>.

A more particularly preferred embodiment of the first aspect relates to a compound, wherein the compound is selected from the group consisting of

- Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Arg-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Arg-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;  
5 Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;  
Val-Ndab-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;  
Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Cha;  
Val-Pro-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
10 Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Pen-Dab-Arg-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro-Ile-Thr-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro-Ile-Phe-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
15 2OHVal-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dap-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Orn-Lys-Cys-Dab-Arg-Tyr;  
20 Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Lys-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Arg-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Arg-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Tyr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
25 Val-Hyp-Ile-Leu-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Asn-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Lys-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Trp-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
30 Val-Hyp-Ile-Thr-Tyr-Pen-Ala-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;

- Val-Hyp-Ile-Thr-Tyr-Pen-Leu-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ser-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Thr-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
5 Val-Hyp-Ile-Thr-Tyr-Pen-Lys-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Lys-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Arg-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ser-Cys-Dab-Arg-Tyr;  
10 Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Tyr-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Trp-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Asn-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Dab-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Leu-Tyr;  
15 Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Ser-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Lys-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Arg-Tyr;  
20 NMeVal-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Dap-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Dap-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Arg-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
25 Gua-Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Pro-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
30 Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;

- Gua-Val-Hyp-Ile-Tyr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Gln-Arg-Tyr;  
Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Glu-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Thr-Tyr-Pen-His-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Dab-Cys-Dab-Arg-Tyr;  
5 Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
10 Gua-Val-Hyp-Ile-alloThr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
TMG-Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
TMG-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pra-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Abu(4N<sub>3</sub>)-Dab-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Asp-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Dab-Dab-Arg-Tyr;  
15 Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Cit-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
20 Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Orn-Cys-Dab-Arg-Tyr;  
Abu-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Lys-Thr-<sup>D</sup>Dab-Lys-Cys-Lys-Arg-Tyr;  
25 Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Dab-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Ile-Cys-Dab-Dab-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Arg-Tyr;  
30 Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;

- Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Arg-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Orn-Tyr;)  
5 Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
tBuGly-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Ile-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Orn-Tyr;  
10 Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Ser-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Ser-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ser-Cys-Dab-Arg-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Ser-Tyr;  
15 Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Ser-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Ser-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Ser-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Arg-Tyr;  
20 Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Ser-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
25 Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Thr-Tyr;  
tBuGly-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Thr-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Thr-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Thr-Tyr;  
30 Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Ile-Cys-Dab-Arg-Tyr;

- Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Thr-Tyr;  
 Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
 Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Orn-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Arg-Tyr;  
 Val-Hyp-Ile-Orn-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
 5 Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Orn-Cys-Dab-Arg-Tyr;  
 Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Cit-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 Val-Hyp-Ile-Lys(Me)-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 Val-Hyp-Ile-Val(3OH)-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 Val-Pro(4,4F<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 10 Val-Pro(3,4dehydro)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 Val-Pro(4,4F<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 Val-Pro((4R)OPh)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 Val-Pro((4R)F)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 Val-Pic-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 15 Val-NalloThr-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab(iPr)-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn(iPr)-Tyr;  
 Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab(iPr)-Thr-<sup>D</sup>Dab-Lys-Cys-Dab(iPr)-Arg-Tyr; (  
 Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn(iPr)-Tyr;  
 Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn(iPr)-Tyr;  
 20 Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab(iPr)-Lys-Cys-Dab-Arg-Tyr;  
 or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof;  
 wherein Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a  
 disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge  
 25 between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole  
 bridge between P<sup>6</sup> and P<sup>13</sup>.

- Another more particularly preferred embodiment of the first aspect relates to a  
 30 compound, wherein the compound is selected from the group consisting of

- Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Arg-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Arg-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;  
Val-Ndab-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;  
5 Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;  
Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Cha;  
Val-Pro-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Pen-Dab-Arg-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
10 Val-Hyp-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro-Ile-Thr-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro-Ile-Phe-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
2OHVal-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
15 Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dap-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Orn-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Lys-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Arg-Lys-Cys-Dab-Arg-Tyr;  
20 Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Arg-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Tyr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Leu-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Asn-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
25 Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Lys-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Trp-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ala-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Leu-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
30 Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;

- Val-Hyp-Ile-Thr-Tyr-Pen-Ser-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Thr-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Lys-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Lys-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
5 Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Arg-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ser-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Tyr-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Trp-Cys-Dab-Arg-Tyr;  
10 Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Asn-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Dab-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Leu-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Ser-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
15 Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Lys-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Arg-Tyr;  
NMeVal-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Dap-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
20 Val-Hyp-Ile-Dap-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Arg-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
Gua-Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Pro-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
25 Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Tyr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Gln-Arg-Tyr;  
30 Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Glu-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;

- Gua-Val-Hyp-Ile-Thr-Tyr-Pen-His-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Dab-Cys-Dab-Arg-Tyr;  
 Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
 5 Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
 Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
 Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
 Gua-Val-Hyp-Ile-alloThr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
 TMG-Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 10 TMG-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
 Val-Hyp-Ile-Ile-Tyr-Pra-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Abu(4N<sub>3</sub>)-Dab-Arg-Tyr;  
 Val-Hyp-Ile-Ile-Tyr-Asp-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Dab-Dab-Arg-Tyr;  
 or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof;  
 wherein Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a  
 15 disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge  
 between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole  
 bridge between P<sup>6</sup> and P<sup>13</sup>.  
 20
- A further embodiment of the first aspect relates to compounds, which are identical to  
 the compounds of formula (I), except that one or more atoms are replaced by an atom  
 having an atomic mass number or mass different from the atomic mass number or mass  
 usually found in nature, e.g. compounds enriched in <sup>2</sup>H (D), <sup>3</sup>H, <sup>11</sup>C, <sup>14</sup>C, <sup>127</sup>I etc. These  
 25 isotopic analogs and their pharmaceutical salts and formulations are considered useful  
 agents in the therapy and/or diagnostic, for example, but not limited to, where a fine-  
 tuning of *in vivo* half-life time could lead to an optimized dosage regimen.
- In a second aspect, the invention relates to an enantiomer of a compound of formula  
 30 (I) according to the first aspect.

Hereinafter follows a list of abbreviations, corresponding to generally adopted usual practice, of amino acids or derivatives thereof which, or the residues of which, are suitable for the purposes of the present invention and referred to in this document.

In spite of this specific determination of amino acids or derivatives thereof, it is noted  
5 that, for a person skilled in the art, it is obvious that derivatives of these amino acids or derivatives thereof, resembling alike structural and physico-chemical properties, lead to functional analogs with similar biological activity, and therefore still form part of the gist of the present invention.

|    |        |   |                                     |
|----|--------|---|-------------------------------------|
|    | Ala    | A | L-Alanine                           |
| 10 | Arg    | R | L-Arginine                          |
|    | Asn    | N | L-Asparagine                        |
|    | Asp    | D | L-Aspartic acid                     |
|    | Cys    | C | L-Cysteine                          |
|    | Gln    | Q | L-Glutamine                         |
| 15 | Glu    | E | L-Glutamic acid                     |
|    | Gly    | G | Glycine                             |
|    | His    | H | L-Histidine                         |
|    | Ile    | I | L-Isoleucine                        |
|    | Leu    | L | L-Leucine                           |
| 20 | Lys    | K | L-Lysine                            |
|    | Met    | M | L-Methionine                        |
|    | Phe    | F | L-Phenylalanine                     |
|    | Pro    | P | L-Proline                           |
|    | Ser    | S | L-Serine                            |
| 25 | Thr    | T | L-Threonine                         |
|    | Trp    | W | L-Tryptophan                        |
|    | Tyr    | Y | L-Tyrosine                          |
|    | Val    | V | L-Valine                            |
| 30 | 2OHVal |   | (S)-2-hydroxy-3-methylbutanoic acid |

|    |                         |                                                        |
|----|-------------------------|--------------------------------------------------------|
|    | Ala(cPr)                | (S)-2-amino-3-cyclopropylpropanoic acid                |
|    | Ala(tetrahydropyran4yl) | (S)-2-amino-3-(tetrahydro-2H-pyran-4-yl)propanoic acid |
|    | Abu                     | (S)-2-aminobutanoic acid                               |
| 5  | alloIle                 | L-alloisoleucine                                       |
|    | betaGly                 | 3-aminopropanoic acid                                  |
|    | Cha                     | (S)-2-amino-3-cyclohexylpropanoic acid                 |
|    | Cpa                     | (S)-2-amino-3-cyclopentylpropanoic acid                |
|    | Cpg                     | (S)-2-amino-2-cyclopentylacetic acid                   |
| 10 | Cyg                     | (S)-2-amino-2-cyclopropylacetic acid                   |
|    | Dea                     | (S)-2-amino-3-ethylpentanoic acid                      |
|    | Hle                     | (S)-2-amino-5-methylhexanoic acid                      |
|    | Nle                     | (S)-2-aminohexanoic acid                               |
|    | OctGly                  | (S)-2-aminodecanoic acid                               |
| 15 | Sar                     | N-methylglycine                                        |
|    | tBuGly                  | (S)-2-amino-3,3-dimethylbutanoic acid                  |
|    | tBuAla                  | (S)-2-amino-4,4-dimethylpentanoic acid                 |
|    | NMeAla                  | N-methyl-L-alanine                                     |
|    | NMeVal                  | N-methyl-L-valine                                      |
| 20 | Gua-Val                 | N-amidino-L-valine                                     |
|    | TMG-Val                 | (S)-2-(N,N,N',N'-tetramethylguanidino)-propanoic acid  |
|    | Nva                     | (S)-2-aminopentanoic acid                              |
|    | Pic                     | (S)-piperidine-2-carboxylic acid                       |
| 25 | Pro((4R)F)              | (2S,4R)-4-fluoropyrrolidine-2-carboxylic acid          |
|    | Pro((4S)F)              | (2S,4S)-4-fluoropyrrolidine-2-carboxylic acid          |
|    | Pro(4,4F <sub>2</sub> ) | (S)-4,4-difluoropyrrolidine-2-carboxylic acid          |
|    | Pro((4R)OMe)            | (2S,4R)-4-methoxypyrrolidine-2-carboxylic acid         |
|    | Pro(3,4dehydro)         | (S)-2,5-dihydro-1H-pyrrole-2-carboxylic acid           |

|    |                         |                                                          |
|----|-------------------------|----------------------------------------------------------|
|    | Phe(3OH)                | (S)-2-amino-3-(3-hydroxyphenyl)propanoic acid            |
|    | Phe(4F)                 | (S)-2-amino-3-(4-fluorophenyl)propanoic acid             |
|    | Phe(4OCF <sub>3</sub> ) | (S)-2-amino-3-(4-(trifluoromethoxy)phenyl)propanoic acid |
|    | Trp(6Cl)                | (S)-2-amino-3-(6-chloro-1H-indol-3-yl)propanoic acid     |
| 5  | Tyr(3Cl)                | (S)-2-amino-3-(3-chloro-4-hydroxyphenyl)propanoic acid   |
|    | Tyr(3F)                 | (S)-2-amino-3-(3-fluoro-4-hydroxyphenyl)propanoic acid   |
|    | Tyr(Phenyl)             | (S)-2-amino-3-(4-phenoxyphenyl)propanoic acid            |
|    | 4Thz                    | (R)-thiazolidine-4-carboxylic acid                       |
|    | Phe(4(4hydroxyphenoxy)) |                                                          |
| 10 |                         | (S)-2-amino-3-(4-(4-hydroxyphenoxy)phenyl)propanoic acid |
|    | Phe(4NH <sub>2</sub> )  | (S)-2-amino-3-(4-aminophenyl)propanoic acid              |
|    | Tyr(Me)                 | (S)-2-amino-3-(4-methoxyphenyl)propanoic acid            |
|    | Ntyr                    | N-(4-Hydroxybenzyl)glycine                               |
|    | Nphe                    | N-(benzyl)glycine                                        |
| 15 |                         |                                                          |
|    | Agb                     | (S)-2-amino-4-guanidinobutanoic acid                     |
|    | Agp                     | (S)-2-amino-3-guanidinopropanoic acid                    |
|    | Dab                     | (S)-2,4-diaminobutanoic acid                             |
|    | 2OHDab                  | (S)-2-hydroxy-4-aminobutanoic acid                       |
| 20 | Dab(iPr)                | (S)-2-amino-4-(isopropylamino)butanoic acid              |
|    | <sup>D</sup> Dab(iPr)   | (R)-2-amino-4-(isopropylamino)butanoic acid              |
|    | Dap                     | (S)-2,3-diaminopropanoic acid                            |
|    | Dap(iPr)                | (S)-2-amino-3-(isopropylamino)propanoic acid             |
|    | <sup>D</sup> Dap(iPr)   | (R)-2-amino-3-(isopropylamino)propanoic acid             |
| 25 | Har                     | N6-carbamimidoyl-L-lysine                                |
|    | Lys(iPr)                | N6-isopropyl-L-lysine                                    |
|    | <sup>D</sup> Lys(iPr)   | N6-isopropyl-D-lysine                                    |
|    | Narg                    | N-(3-guanidinopropyl)glycine                             |
|    | Ndab                    | N-(2-aminoethyl)glycine                                  |
| 30 | Nlys                    | N-(4-aminobutyl)glycine                                  |

|    |                                   |                                                                    |
|----|-----------------------------------|--------------------------------------------------------------------|
|    | Norn                              | <i>N</i> -(3-aminopropyl)glycine                                   |
|    | NalloThr                          | <i>N</i> -(( <i>S</i> )-Hydroxyethyl)glycine                       |
|    | Orn                               | ( <i>S</i> )-2,5-diaminopentanoic acid                             |
|    | Orn(iPr)                          | ( <i>S</i> )-2-amino-5-(isopropylamino)pentanoic acid              |
| 5  | <sup>D</sup> Orn(iPr)             | ( <i>R</i> )-2-amino-5-(isopropylamino)pentanoic acid              |
|    | Pro((4 <i>R</i> ))guanidine       | (2 <i>S</i> ,4 <i>R</i> )-4-guanidinopyrrolidine-2-carboxylic acid |
|    | Pro((4 <i>R</i> ))NH <sub>2</sub> | (2 <i>S</i> ,4 <i>R</i> )-4-aminopyrrolidine-2-carboxylic acid     |
|    | Pro((4 <i>S</i> ))NH <sub>2</sub> | (2 <i>S</i> ,4 <i>S</i> )-4-aminopyrrolidine-2-carboxylic acid     |
| 10 | NMeLys                            | <i>N</i> -methyl-L-lysine                                          |
|    | Lys(Me)                           | N <sup>6</sup> -Methyl-L-lysine                                    |
|    | alloThr                           | L- <i>allo</i> threonine                                           |
|    | Cit                               | ( <i>S</i> )-2-amino-5-ureidopentanoic acid                        |
| 15 | Hgn                               | ( <i>S</i> )-2,6-diamino-6-oxohexanoic acid                        |
|    | Hse                               | L-homoserine                                                       |
|    | Hyp                               | (2 <i>S</i> ,4 <i>R</i> )-4-hydroxypyrrolidine-2-carboxylic acid   |
|    | Leu((3 <i>R</i> ))OH              | (2 <i>S</i> ,3 <i>R</i> )-2-amino-3-hydroxy-4-methylpentanoic acid |
|    | Hgl                               | ( <i>S</i> )-2-aminohexanedioic acid                               |
| 20 | Val(3OH)                          | 3-Hydroxy-L-valine                                                 |
|    | Pra                               | L-propargylglycine                                                 |
|    | Abu(4N <sub>3</sub> )             | ( <i>S</i> )-2-amino-4-azidobutanoic acid                          |
|    | Hcy                               | L-homocysteine                                                     |
| 25 | NMeCys                            | <i>N</i> -methyl-L-cysteine                                        |
|    | Pen                               | ( <i>R</i> )-2-amino-3-mercapto-3-methylbutanoic acid              |

The abbreviation of D-isomers, e.g. <sup>D</sup>Lys corresponds to the epimer at the 2-position of the appropriate amino acid described above.

The abbreviation "Gua-" followed by an abbreviation of an amino acid, or amino acid residue, as listed above, corresponds to the N-amidinylated amino acid, or amino acid residue, having the N-terminal amino group replaced by a guanidino (Gua) group, like for example:

- 5   Gua-Glu           *N*-amidino-L-glutamic acid  
                          (*S*)-2-guanidino-pentanedioic acid

The abbreviation "TMG-" followed by an abbreviation of an amino acid, or amino acid residue, as listed above, corresponds to the amino acid, or amino acid residue, having the N-terminal amino group replaced by a *N,N,N',N'*-tetramethylguanidino (TMG)

- 10   group, like for example:

TMG-Trp           (*S*)-2-(*N,N,N',N'*-tetramethylguanidino)-3-(1*H*-indol-3-yl)propanoic acid.

- In a third aspect, the invention relates to a pharmaceutical composition containing a  
15   compound or a mixture of compounds according to the first aspect and at least one pharmaceutically inert carrier.

- In one embodiment of the third aspect, the pharmaceutical composition is in a form suitable for oral, topical, transdermal, injection, buccal, transmucosal, rectal, pulmonary  
20   or inhalation administration. In a further embodiment of the third aspect, the pharmaceutical composition is in the form of a tablet, a dragee, a capsule, a solution, a liquid, a gel, a plaster, a cream, an ointment, a syrup, a slurry, a suspension, a spray, a nebulizer, an aerosol, or a suppository.

- 25   In a fourth aspect, the invention relates to a compound of formula (I) according to the first aspect or a pharmaceutically acceptable salt thereof.

In a fifth aspect, the invention relates to a compound of formula (I) according to the first aspect or a pharmaceutically acceptable salt thereof for use as a medicament.

In a sixth aspect, the invention relates to a compound according to the first aspect for use as a pharmaceutically active substance having antibiotic activity.

In a seventh aspect, the invention relates to a use of a compound according to the first aspect for the manufacture of a medicament to treat or prevent infections or diseases  
5 related to such infections; particularly infections related to respiratory diseases or skin or soft tissue diseases or gastrointestinal diseases or eye diseases or ear diseases or CNS diseases or bone diseases or cardiovascular diseases or genitourinary diseases, or nosocomial infections, or catheter-related and non-catheter-related infections, or urinary tract infections, or bloodstream infections; or infection-induced sepsis.

10

In an eighth aspect, the invention relates to a use of a compound according to the first aspect as a disinfectant or preservative for foodstuffs, cosmetics, medicaments, and/or other nutrient-containing materials.

15 In a ninth aspect, the invention relates to a use of a compound according to the first aspect as a pharmaceutically active substance having antibiotic activity.

In a tenth aspect, the invention relates to a use of a compound according to the first aspect or a composition according to the third aspect for the treatment or prevention  
20 of infections or diseases related to such infections; particularly infections related to respiratory diseases or skin or soft tissue diseases or gastrointestinal diseases or eye diseases or ear diseases or CNS diseases or bone diseases or cardiovascular diseases or genitourinary diseases, or nosocomial infections, or catheter-related and non-catheter-related infections, or urinary tract infections, or bloodstream infections; or infection-  
25 induced sepsis.

In an eleventh aspect, the invention relates to a use of a compound according to the first aspect or a composition according to the third aspect as a disinfectant or preservative for foodstuffs, cosmetics, medicaments and/or other nutrient-containing materials.

In a twelfth aspect, the invention relates to a method of treating an infection, especially infections such as nosocomial infections, catheter-related and non-catheter-related infections, urinary tract infections, bloodstream infections, or a disease or disorder associated with an infection, especially diseases or disorders such as ventilator-associated pneumonia (VAP), ventilator-associated bacterial pneumonia (VABP),  
5 hospital-acquired pneumonia (HAP), hospital-acquired bacterial pneumonia (HABP), healthcare-associated pneumonia (HCAP), cystic fibrosis, emphysema, asthma, pneumonia, epidemic diarrhea, necrotizing enterocolitis, typhlitis, gastroenteritis, pancreatitis, keratitis, endophthalmitis, otitis, brain abscess, meningitis, encephalitis,  
10 osteochondritis, pericarditis, epididymitis, prostatitis, urethritis, sepsis; surgical wounds, traumatic wounds, burns, comprising the step:  
administering to a subject in need thereof a pharmaceutically acceptable amount or a therapeutically active amount of a compound or a mixture of compounds according to the first aspect or a therapeutically active amount of a pharmaceutical composition  
15 according to the third aspect.

In a thirteenth aspect, the invention relates to a process for the preparation of a compound according to the first aspect which comprises the following steps:

- (a) coupling an appropriately functionalized solid support with an appropriately N-protected derivative of that amino acid which in the desired end-product is in  
20 position P<sup>16</sup>; any functional group which may be present in said N-protected amino acid derivative being likewise appropriately protected;
- (b) removing the N-protecting group from the product thus obtained;
- (c) coupling the product thus obtained with an appropriately N-protected  
25 derivative of that amino acid which in the desired end-product is in position P<sup>15</sup>; any functional group which may be present in said N-protected amino acid derivative being likewise appropriately protected;
- (d) effecting steps substantially corresponding to steps (b) and (c) using  
30 appropriately N-protected derivatives of amino acids which in the desired end-product are in positions P<sup>14</sup> to P<sup>6</sup>, any functional group(s) which may be present

- in said N-protected amino acid derivatives being likewise appropriately protected;
- (e) optionally selectively deprotecting one or several protected functional group(s) present in the molecule and chemically transforming the reactive group(s) thus liberated;
- 5 (f) effecting steps substantially corresponding to steps (b) and (c) using appropriately N-protected derivatives of amino acids which in the desired end-product are in positions  $P^5$  to  $P^2$ , any functional group(s) which may be present in said N-protected amino acid derivatives being likewise appropriately protected; and, optionally, following each coupling, selectively deprotecting
- 10 one or several protected functional group(s) present in the molecule and chemically transforming the reactive group(s) thus liberated;
- (g) further effecting steps substantially corresponding to steps (b) and (c) using an appropriately N-protected derivative of an amino acid, or optionally, an
- 15 appropriately protected derivative of a hydroxy acid, which in the desired end-product is in position  $P^1$ , any functional group(s) which may be present in said N-protected amino acid derivative, or hydroxy acid derivative, being likewise appropriately protected; and, optionally, following the coupling, selectively deprotecting one or several protected functional group(s) present in the
- 20 molecule and chemically transforming the reactive group(s) thus liberated;
- (h) optionally selectively deprotecting one or several protected functional group(s) present in the molecule and chemically transforming the reactive group(s) thus liberated;
- (i) optionally, removing the N-protecting group at position  $P^1$ ;
- 25 (j) detaching the product thus obtained from the solid support;
- (k) optionally selectively deprotecting one or several protected functional group(s) present in the molecule and chemically transforming the reactive group(s) thus liberated;

- (l) removing any protecting groups present on functional groups of any members of the chain of residues and, optionally, any protecting group(s) which may in addition be present in the molecule;
- (m) optionally implementing additional chemical transformations of one or more reactive group(s) present in the molecule;
- (n) if required, removing any protecting groups present on functional groups of any members of the chain of residues and, optionally, any protecting group(s) which may in addition be present in the molecule; and
- (o) optionally converting the product thus obtained into a pharmaceutically acceptable salt; or  
optionally converting a pharmaceutically acceptable or unacceptable salt thus obtained into the corresponding free compound of formula (I); or  
optionally converting a pharmaceutically acceptable or unacceptable salt thus obtained into a different, pharmaceutically acceptable salt.

Enantiomers of the compounds defined herein before form also part of the present invention. These enantiomers can be prepared by a modification of the above process wherein enantiomers of all chiral starting materials are utilized.

The process of the invention can advantageously be carried out as parallel array synthesis to yield libraries of peptidomimetics of the invention. Such parallel syntheses allow one to obtain arrays of numerous (normally 12 to 576, typically 96) compounds as described above in moderate to high yields and defined purities, minimizing the formation of dimeric and polymeric by-products.

The functionalized solid support is conveniently derived from polystyrene crosslinked with, preferably 1-5%, divinylbenzene; polystyrene coated with polyethyleneglycol spacers (Tentagel™); and polyacrylamide resins (see also D. Obrecht, J.-M. Villalgorido, "Solid-Supported Combinatorial and Parallel Synthesis of Small-Molecular-Weight Compound Libraries", *Tetrahedron Organic Chemistry Series*, Vol. 17, Pergamon, Elsevier Science, 1998).

The solid support is functionalized by means of a linker, i.e. a bifunctional spacer molecule which contains on one end an anchoring group for attachment to the solid support and on the other end a selectively cleavable functional group used for the subsequent chemical transformations and cleavage procedures. For the purposes of the present invention two types of linkers are used:

Type 1 linkers are designed to release the amide group under acidic conditions (H. Rink, *Tetrahedron Lett.* **1987**, 28, 3783-3790). Linkers of this kind form amides of the carboxyl group of the amino acids; examples of resins functionalized by such linker structures include 4-((((2,4-dimethoxyphenyl)Fmoc-aminomethyl) phenoxyacetamido) aminomethyl] PS resin, 4-((((2,4-dimethoxyphenyl) Fmoc-aminomethyl)phenoxyacetamido)-aminomethyl]-4-methyl-benzhydrylamine PS resin (Rink amide MBHA PS Resin), and 4-((((2,4-dimethoxy-phenyl) Fmoc-aminomethyl)phenoxyacetamido) aminomethyl] benzhydrylamine PS-resin (Rink amide BHA PS resin), and Fmoc-amino-xanthen-3-yloxy PS resin, Sieber linker resin). Preferably, the support is derived from polystyrene crosslinked with, most preferably 1-5%, divinylbenzene and functionalized by means of the 4-((((2,4-dimethoxy-phenyl) Fmoc-aminomethyl)phenoxyacetamido) linker.

Type 2 linkers are designed to eventually release the carboxyl group under acidic conditions. Linkers of this kind form acid-labile esters with the carboxyl group of the amino acids, usually acid-labile benzyl, benzhydryl and trityl esters; examples of such linker structures include 2-methoxy-4-hydroxymethylphenoxy (Sasrin<sup>TM</sup> linker), 4-(2,4-dimethoxyphenyl-hydroxy-methyl)-phenoxy (Rink linker), 4-(4-hydroxymethyl-3-methoxyphenoxy)butyric acid (HMPB linker), trityl and 2-chlorotrityl. Preferably, the support is derived from polystyrene crosslinked with, most preferably 1-5%, divinylbenzene and functionalized by means of the 2-chlorotrityl linker.

When carried out as parallel array synthesis the process of the invention can be advantageously carried out as described herein below but it will be immediately apparent to those skilled in the art how these procedures will have to be modified in case it is desired to synthesize one single compound of the invention.

A number of reaction vessels (normally 12 to 576, typically 96) equal to the total number of compounds to be synthesized by the parallel method are loaded with 10 to 1000 mg, preferably 40 mg, of the appropriate functionalized solid support, preferably 1 to 5% cross-linked polystyrene.

5

The solvent to be used must be capable of swelling the resin and includes, but is not limited to, dichloromethane (DCM), dimethylformamide (DMF), N-methylpyrrolidone (NMP), dioxane, toluene, tetrahydrofuran (THF), ethanol (EtOH), trifluoroethanol (TFE), isopropylalcohol and the like. Solvent mixtures containing as at least one component a polar solvent (e.g. 20% TFE/DCM, 35% THF/NMP) are beneficial for ensuring high reactivity and solvation of the resin-bound peptide chains (G.B. Fields, C.G. Fields, *J. Am. Chem. Soc.* **1991**, *113*, 4202-4207).

With the development of various linkers that release the C-terminal carboxylic acid group under mild acidic conditions, not affecting acid-labile groups protecting functional groups in the side chain(s), considerable progresses have been made in the synthesis of protected peptide fragments. The 2-methoxy-4-hydroxybenzylalcohol-derived linker (Sasrin<sup>TM</sup> linker, Mergler et al., *Tetrahedron Lett.* **1988**, 29 4005-4008) is cleavable with diluted trifluoroacetic acid (0.5-1% TFA in DCM) and is stable to Fmoc deprotection conditions during the peptide synthesis, Boc/tBu-based additional protecting groups being compatible with this protection scheme. Other linkers which are suitable for the process of the invention include the super acid labile 4-(2,4-dimethoxyphenyl-hydroxymethyl)-phenoxy linker (Rink linker, H. Rink, *Tetrahedron Lett.* **1987**, 28, 3787-3790), where the removal of the peptide requires 10% acetic acid in DCM or 0.2% trifluoroacetic acid in DCM; the 4-(4-hydroxymethyl-3-methoxyphenoxy)butyric acid-derived linker (HMPB-linker, Flörsheimer & Riniker, **1991**, Peptides 1990: Proceedings of the Twenty-First European Peptide Symposium, 131) which is also cleaved with 1% TFA/DCM in order to yield a peptide fragment containing all acid labile side-chain protective groups; and, in addition, the 2-chlorotritylchloride linker (Barlos et

al., *Tetrahedron Lett.* **1989**, 30, 3943-3946), which allows the peptide detachment using a mixture of glacial acetic acid/trifluoroethanol/DCM (1:2:7) for 30 min.

Suitable protecting groups for amino acids and, respectively, for their residues are, for  
5 example,

- for the amino group (as is present e.g. also in the side-chain of lysine)

|    |       |                                                             |
|----|-------|-------------------------------------------------------------|
|    | Cbz   | benzyloxycarbonyl                                           |
| 10 | Boc   | tert.-butoxycarbonyl                                        |
|    | Fmoc  | 9-fluorenylmethoxycarbonyl                                  |
|    | Alloc | allyloxycarbonyl                                            |
|    | Teoc  | trimethylsilylethoxycarbonyl                                |
|    | Tcc   | trichloroethoxycarbonyl                                     |
| 15 | Nps   | o-nitrophenylsulfonyl                                       |
|    | Trt   | triphenylmethyl or trityl                                   |
|    | ivDe  | 1-(4,4-dimethyl-2,6-dioxocyclohex-1-ylidene)-3-methylbutyl; |

- for the carboxyl group (as is present e.g. also in the side-chain of aspartic and  
20 glutamic acid) by conversion into esters with the alcohol components

|    |     |                     |
|----|-----|---------------------|
|    | tBu | tert.-butyl         |
|    | Bn  | benzyl              |
|    | Me  | methyl              |
| 25 | Ph  | phenyl              |
|    | Pac | phenacyl            |
|    |     | allyl               |
|    | Tse | trimethylsilylethyl |
|    | Tce | trichloroethyl      |

Dmab 4-N-(1-[dimethyl-2,6-dioxocyclohexylidene]-3-methylbutyl)-amino  
benzyl;

2-PhiPr 2-phenyl-isopropyl;

5 - for the guanidino group (as is present e.g. in the side-chain of arginine)

Pmc 2,2,5,7,8-pentamethylchroman-6-sulfonyl

Ts tosyl (i.e. p-toluenesulfonyl)

Cbz benzyloxycarbonyl

10 Pbf pentamethyldihydrobenzofuran-5-sulfonyl;

- and for the hydroxy group (as is present e.g. in the side-chain of threonine and  
serine)

tBu *tert.*-butyl

15 Bn benzyl

Trt trityl

Alloc allyloxycarbonyl.

The 9-fluorenylmethoxycarbonyl-(Fmoc)-protected amino acid derivatives are preferably  
20 bly used as the building blocks for the construction of the peptidomimetics of the  
invention. For the deprotection, i.e. cleaving off of the Fmoc group, 20% piperidine in  
DMF or 2% DBU/2% piperidine in DMF can be used as well as 25% hexafluoroisopropanol  
in CH<sub>2</sub>Cl<sub>2</sub>.

The quantity of the reactant, i.e. of the amino acid derivative, is usually 1 to 20  
25 equivalents (eq) based on the milliequivalents per gram (meq/g) loading of the  
functionalized solid support (typically 0.1 to 2.85 meq/g for polystyrene resins) originally  
weighed into the reaction tube. Additional equivalents of reactants can be used, if  
required, to drive the reaction to completion in a reasonable time. The preferred  
workstations (without, however, being limited thereto) are Protein Technologies'  
30 Symphony X and MultiSynTech's-Syro synthesizer, the latter additionally equipped with

a transfer unit and a reservoir box during the process of detachment of the fully protected linear peptide from the solid support. All synthesizers are able to provide a controlled environment, for example, reactions can be accomplished at temperatures different from room temperature as well as under inert gas atmosphere, if desired.

- 5 Amide bond formation requires the activation of the  $\alpha$ -carboxyl group for the acylation step. When this activation is being carried out by means of the commonly used carbodiimides such as dicyclohexylcarbodiimide (DCC, Sheehan & Hess, *J. Am. Chem. Soc.* **1955**, 77, 1067-1068) or diisopropylcarbodiimide (DIC, Sarantakis et al *Biochem. Biophys. Res. Commun.* **1976**, 73, 336-342), the resulting dicyclohexylurea and, respectively, diisopropylurea is insoluble and, respectively, soluble in the solvents generally used. In a variation of the carbodiimide method, 1-hydroxy benzotriazole (HOBt, König & Geiger, *Chem. Ber.* **1970**, 103, 788-798) or HOAt (ref) or ethyl cyano(hydroxyimino) acetate (Oxyma, (R. Subirós-Funosas, et al, *Chem. Eur. J.* **2009**, 15, 9394-9403)) is included as an additive to the coupling mixture. HOBt, HOAt and Oxyma prevent dehydration, suppresses racemization of the activated amino acids and acts as a catalyst to improve the sluggish coupling reactions. Certain phosphonium reagents have been used as direct coupling reagents, such as benzotriazol-1-yl-oxy-tris-(dimethyl-amino)-phosphonium hexafluorophosphate (BOP, Castro et al., *Tetrahedron Lett.* **1975**, 14, 1219-1222; *Synthesis* **1976**, 751-752), or benzotriazol-1-yl-oxy-tris-pyrrolidino-phosphonium hexafluorophosphate (Py-BOP, Coste et al., *Tetrahedron Lett.* **1990**, 31, 205-208), or 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronium tetrafluoroborate (TBTU), or hexafluorophosphate (HBTU, Knorr et al., *Tetrahedron Lett.* **1989**, 30, 1927-1930); these phosphonium reagents are also suitable for *in situ* formation of HOBt esters with the protected amino acid derivatives. Diphenoxyphosphoryl azide (DPPA) or
- 25 O-(7-aza-benzotriazol-1-yl)-N,N,N',N'-tetramethyluronium tetrafluoroborate (TATU) or O-(7-aza-benzotriazol-1-yl)-N,N,N',N'-tetramethyluronium hexafluorophosphate (HATU)/7-aza-1-hydroxybenzotriazole (HOAt, Carpino et al., *Tetrahedron Lett.* **1994**, 35, 2279-2281) or -(6-Chloro-1H-benzotriazol-1-yl)-N,N,N',N'-1,1,3,3-tetramethyluronium tetrafluoroborate (TCTU), or hexafluorophosphate (HCTU, Marder, Shivo and Albericio:
- 30 HCTU and TCTU: New Coupling Reagents: Development and Industrial Applications,

Poster Presentation, Gordon Conference February 2002) can be used as coupling reagents as well as 1,1,3,3-bis(tetramethylene)chlorouronium hexafluorophosphate (PyClU) especially for coupling of N-methylated amino acids (J. Coste, E. Frérot, P. Jouin, B. Castro, *Tetrahedron Lett.* **1991**, 32, 1967) or pentafluorophenyl diphenyl-phosphinate (S. Chen, J. Xu, *Tetrahedron Lett.* **1991**, 32, 6711). More recently, new coupling reagents based on Oxyma have been introduced e.g. ([1-(cyano-2-ethoxy-2-oxoethyl-ideneaminoxy) dimethylaminomorpholino]) uronium hexafluorophosphate (COMU, A. El-Faham, et al. *Chem. Eur. J* **2009**, 15, 9404-9416))

Due to the fact that near-quantitative coupling reactions are essential, it is desirable to have experimental evidence for completion of the reactions. The ninhydrin test (Kaiser et al., *Anal. Biochemistry* **1970**, 34, 595) and the 2,4,6-trinitrobenzene sulfonic (TNBS) test (Hancock W.S. et al, *Anal. Biochem* **1976**, 71, 260), where a positive colorimetric response to an aliquot of resin-bound peptide or peptide indicates qualitatively the presence of the primary amine, can easily and quickly be performed after each coupling step. For the secondary amine detection e.g. for proline derivatives, the chloranil test (Vojkovsky T., *Pept. Res.* **1995**, 68, 236) can be used. Fmoc chemistry allows the spectrophotometric detection of the Fmoc chromophore when it is released with the base (Meienhofer et al., *Int. J. Peptide Protein Res.* **1979**, 13, 35-42).

20

The resin-bound intermediate within each reaction vessel is washed free of excess of retained reagents, of solvents, and of by-products by repetitive exposure to pure solvent(s).

Washing procedures are repeated up to about 30 times (preferably about 5 times), monitoring the efficiency of reagent, solvent, and by-product removal by methods such as TLC, GC, LC-MS or inspection of the washings.

The above described procedure of reacting the resin-bound compound with reagents within the reaction wells followed by removal of excess reagents, by-products, and

30

solvents is repeated with each successive transformation until the final resin-bound fully protected linear peptide has been obtained.

Before this fully protected linear peptide is detached from the solid support, it is possible, if desired, to selectively deprotect one or several protected functional group(s) present in the molecule and to appropriately substitute the reactive group(s) thus liberated. To this effect, the functional group(s) in question must initially be protected by a protecting group which can be selectively removed without affecting the remaining protecting groups present. Alloc (allyloxycarbonyl) is an example for such an amino protecting group which can be selectively removed, e.g. by means of Pd<sup>0</sup> and dimethylbarbituric acid (DMBA) in DCM/DMSO, without affecting the remaining protecting groups, such as Fmoc, present in the molecule. The reactive group thus liberated can then be treated with an agent suitable for further functionalization or for cyclization of the peptide on-solid support using the well-established lactam bridge. This bridge is formed by linking e.g. the amino group-bearing side chains of 2,4-diaminobutyric acid (Dab), ornithine and lysine, respectively, with the carboxyl group-bearing side chains of glutamic and aspartic acid residues located at opposite positions in the structure by means of an amide bond formation. Preferred protective groups for the side chain amino-groups side chains are allyloxycarbonyl (alloc) and for the side chain carboxyl-groups of aspartic and glutamic acid allylesters (allyl). For instance, the formation of a lactam bridge on solid support can be carried out after assembly of the linear peptide on resin by applying 0.2 eq tetrakis(triphenyl-phosphine)palladium(0) (10 mM) in dry DCM and 10 eq dimethylbarbituric acid in DMSO to selectively remove alloc- and allyl-protecting groups from amino and carboxyl functional groups of the side chains of amino acid residues to be linked. After repetition of the above procedure, the lactam bridge is formed on solid support by adding 4 eq of DIPEA in NMP and subsequent addition of 2 eq PyBOP in DMF or using 2 eq of Oxyma and 4 eq. of DIC in DCM. Finally, after the on support synthesis including elongation and modification e.g N-terminal functionalization or cyclization, the concomitant detachment and full deprotection of the peptide derivative can be performed with 95% TFA, 2.5% H<sub>2</sub>O, 2.5%

TIS, or 82.5% TFA, 5% anisole, 5% thioanisole, 5% H<sub>2</sub>O and 2.5% TIS or another combination of scavengers for effecting the cleavage of the protected peptide and removal of protecting groups. The deprotection reaction time is commonly 30 minutes to 12 hours, preferably about 2.5 hours. The deprotected linear or cyclic peptide can be  
5 precipitated and washed using cold Et<sub>2</sub>O or isopropyl ether (IPE).

For some compounds of the present invention according general formula (I) additional synthetic steps are required. These transformations can be applied either on a fully protected or partially deprotected linear or cyclic peptide, attached to or already  
10 released from the solid support or on the final deprotected molecule.

In addition to the lactam bridge described above, various methods are known to form interstrand linkages including those described by: J.P. Tam et al., *Synthesis* **1979**, 955-957; J.M. Stewart et al., *Solid Phase Peptide Synthesis*, 2d Ed., Pierce Chemical Company,  
15 Rockford, IL, **1984**; A.K. Ahmed et al., *J. Biol. Chem.* **1975**, 250, 8477-8482; and M.W. Pennington et al., *Peptides*, pages 164-166, Giralt and Andreu, Eds., ESCOM Leiden, The Netherlands, **1990**; C.E. Schafmeister et al., *J. Am. Chem. Soc.* **2000**, 122, 5891.

A widely known linkage is the disulfide bridge formed by e.g. cysteines, homo-cysteines or penicillamine (Pen).

20 Recently, a further type of interstrand linkages based on 1,4-disubstituted 1,2,3-triazole-containing alkanediyl groups have been introduced (copper(I)-catalyzed alkyne-azide cycloaddition (CuAAC) "click" reaction). The linkage is obtained through a 1,3-dipolar cycloaddition between the  $\omega$ -yne group of the side chain of an amino acid residue like e.g. L-propargylglycine and the  $\omega$ -azido group of the side chain of an amino acid residue  
25 like e.g. (S)-2-amino-4-azidobutanoic acid, both residues located at opposite positions in the structure. This cycloaddition is favored in presence of copper(I). For instance, the formation of such a triazole-containing bridge is performed by stirring the purified fully deprotected linear peptide in a buffer containing copper(II) sulfate pentahydrate (CuSO<sub>4</sub> · 5 H<sub>2</sub>O) and L(+)-ascorbic acid used for the *in situ* generation of copper(I).

Depending on its purity, the final product as obtained following the procedures above can be used directly for biological assays, or has to be further purified, for example by preparative HPLC.

It is thereafter possible, if desired, to convert the fully deprotected product thus  
5 obtained into a pharmaceutically acceptable salt or to convert a pharmaceutically acceptable, or unacceptable, salt thus obtained into the corresponding free compound or into a different, pharmaceutically acceptable, salt. Any of these operations can be carried out by methods well known in the art.

10 In general the building blocks for the peptide derivatives of the present invention can be synthesized according to the literature methods, which are known to a person skilled in the art or are commercially available. All other corresponding amino acids have been described either as unprotected or as Boc- or Fmoc-protected racemates, (D)- or (L)-isomers. It will be appreciated that unprotected amino acid building blocks can be easily  
15 transformed into the corresponding Fmoc-protected amino acid building blocks required for the present invention by standard protecting group manipulations. Reviews describing general methods for the synthesis of  $\alpha$ -amino acids include: R. Duthaler, *Tetrahedron (Report)* **1994**, 349, 1540-1650; R.M. Williams, "Synthesis of optically active  $\alpha$ -amino acids", *Tetrahedron Organic Chemistry Series*, Vol.7, J.E. Baldwin, P.D. Magnus  
20 (Eds.), Pergamon Press., Oxford **1989**. An especially useful method for the synthesis of optically active  $\alpha$ -amino acids relevant for this invention includes kinetic resolution using hydrolytic enzymes (M.A. Verhovskaya, I.A. Yamskov, *Russian Chem. Rev.* **1991**, 60, 1163-1179; R.M. Williams, "Synthesis of optically active  $\alpha$ -amino acids", *Tetrahedron Organic Chemistry Series*, Vol.7, J.E. Baldwin, P.D. Magnus (Eds.), Pergamon Press.,  
25 Oxford **1989**, Chapter 7, p.257-279). Kinetic resolution using hydrolytic enzymes involves hydrolysis of amides and nitriles by aminopeptidases or nitrilases, cleavage of N-acyl groups by acylases, and ester hydrolysis by lipases or proteases. It is well documented that certain enzymes will lead specifically to pure (L)-enantiomers whereas others yield the corresponding (D)-enantiomers (e.g.: R. Duthaler, *Tetrahedron Report* **1994**, 349,  
30 1540-1650; R.M. Williams, "Synthesis of optically active  $\alpha$ -amino acids", *Tetrahedron*

*Organic Chemistry Series*, Vol.7, J.E. Baldwin, P.D. Magnus (Eds.), Pergamon Press., Oxford **1989**).

The peptidomimetics of the invention can be used in a wide range of applications in order to inhibit the growth of or to kill microorganisms leading to the desired therapeutic effect in man or, due to their similar etiology, in other mammals. In particular they can be used to inhibit the growth of or to kill Gram-negative bacteria, in particular *Enterobacteriaceae*, and even more particular *Klebsiella pneumoniae* and/or *Escherichia coli*.

10

They can be used for example as disinfectants or as preservatives for materials such as foodstuffs, cosmetics, medicaments and other nutrient-containing materials.

The peptidomimetics of the invention can also be used to treat or prevent diseases related to microbial infection in plants and animals.

For use as disinfectants or preservatives the peptidomimetics can be added to the desired material singly, as mixtures of several peptidomimetics or in combination with other antimicrobial agents.

The peptidomimetics of the invention can be used to treat or prevent infections or diseases related to such infections, particularly nosocomial infections caused by Gram-negative bacteria related to diseases such as ventilator-associated pneumonia (VAP), hospital-acquired pneumonia (HAP), healthcare-associated pneumonia (HCAP); catheter-related and non-catheter-related infections such as urinary tract infections (UTIs) or bloodstream infections (BSIs); infections related to respiratory diseases such as cystic fibrosis, emphysema, asthma or pneumonia; infections related to skin or soft tissue diseases such as surgical wounds, traumatic wounds or burn; infections related to gastrointestinal diseases such as epidemic diarrhea, necrotizing enterocolitis, typhlitis, gastroenteritis or pancreatitis; infections related to eye diseases such as keratitis and endophthalmitis; infections related to ear diseases such as otitis; infections related to CNS diseases such as brain abscess and meningitis or encephalitis; infections related to

bone diseases such as osteochondritis and osteomyelitis; infections related to cardiovascular diseases such as endocarditis and pericarditis; or infections related to genitourinary diseases such as epididymitis, prostatitis and urethritis. They can be administered singly, as mixtures of several peptidomimetics, in combination with other  
5 antimicrobial or antibiotic agents, or anti cancer agents, or antiviral (e.g. anti-HIV) agents, or in combination with other pharmaceutically active agents. The peptidomimetics can be administered per se or as pharmaceutical compositions.

The peptidomimetics of the invention may be administered per se or may be applied as  
10 an appropriate formulation together with carriers, diluents or excipients well known in the art.

Pharmaceutical compositions comprising peptidomimetics of the invention may be manufactured by means of conventional mixing, dissolving, granulating, coated  
15 tablet-making, levigating, emulsifying, encapsulating, entrapping or lyophilizing processes. Pharmaceutical compositions may be formulated in conventional manner using one or more physiologically acceptable carriers, diluents, excipients or auxiliaries which facilitate processing of the active peptidomimetics into preparations which can be used pharmaceutically. Proper formulation depends upon the method of  
20 administration chosen.

For topical administration the peptidomimetics of the invention may be formulated as solutions, gels, ointments, creams, suspensions, etc. as are well-known in the art.

Systemic formulations include those designed for administration by injection, e.g. subcutaneous, intravenous, intramuscular, intrathecal or intraperitoneal injection, as well as those designed for transdermal, transmucosal, oral or pulmonary administration.

5 For injections, the peptidomimetics of the invention may be formulated in adequate solutions, preferably in physiologically compatible buffers such as Hink's solution, Ringer's solution, or physiological saline buffer. The solutions may contain formulatory agents such as suspending, stabilizing and/or dispersing agents. Alternatively, the peptidomimetics of the invention may be in powder form for combination with a  
10 suitable vehicle, e.g., sterile pyrogen-free water, before use.

For transmucosal administration, penetrants appropriate to the barrier to be permeated are used in the formulation as known in the art.

For oral administration, the compounds can be readily formulated by combining the  
15 active peptidomimetics of the invention with pharmaceutically acceptable carriers well known in the art. Such carriers enable the peptidomimetics of the invention to be formulated as tablets, pills, dragees, capsules, liquids, gels, syrups, slurries, suspensions etc., for oral ingestion by a patient to be treated. For oral formulations such as, for example, powders, capsules and tablets, suitable excipients include fillers such as  
20 sugars, such as lactose, sucrose, mannitol and sorbitol; cellulose preparations such as maize starch, wheat starch, rice starch, potato starch, gelatin, gum tragacanth, methyl cellulose, hydroxypropylmethyl cellulose, sodium carboxymethyl-cellulose, and/or polyvinylpyrrolidone (PVP); granulating agents; and binding agents. If desired, disintegrating agents may be added, such as cross-linked polyvinylpyrrolidones, agar,  
25 or alginic acid or a salt thereof, such as sodium alginate. If desired, solid dosage forms may be sugar-coated or enteric-coated using standard techniques.

For oral liquid preparations such as, for example, suspensions, elixirs and solutions, suitable carriers, excipients or diluents include water, glycols, oils, alcohols, etc. In  
30 addition, flavoring agents, preservatives, coloring agents and the like may be added.

For buccal administration, the composition may take the form of tablets, lozenges, etc. formulated as usual.

For administration by inhalation, the peptidomimetics of the invention are conveniently  
5 delivered in form of an aerosol spray from pressurized packs or a nebulizer, with the use  
of a suitable propellant, e.g. dichlorodifluoromethane, trichlorofluoromethane, carbon  
dioxide or another suitable gas. In the case of a pressurized aerosol the dose unit may  
be determined by providing a valve to deliver a metered amount. Capsules and  
cartridges of e.g. gelatin for use in an inhaler or insufflator may be formulated containing  
10 a powder mix of the peptidomimetics of the invention and a suitable powder base such  
as lactose or starch.

The compounds may also be formulated in rectal or vaginal compositions such as  
suppositories together with appropriate suppository bases such as cocoa butter or other  
glycerides.

15 In addition to the formulations described above, the peptidomimetics of the invention  
may also be formulated as depot preparations. Such long acting formulations may be  
administered by implantation (e.g. subcutaneously or intramuscularly) or by  
intramuscular injection. For the manufacture of such depot preparations the  
20 peptidomimetics of the invention may be formulated with suitable polymeric or  
hydrophobic materials (e.g. as an emulsion in an acceptable oil) or ion exchange resins,  
or as sparingly soluble salts.

In addition, other pharmaceutical delivery systems may be employed such as liposomes  
25 and emulsions well known in the art. Certain organic solvents such as dimethylsulfoxide  
may also be employed. Additionally, the peptidomimetics of the invention may be  
delivered using a sustained-release system, such as semipermeable matrices of solid  
polymers containing the therapeutic agent (e.g. for coated stents). Various  
sustained-release materials have been established and are well known by those skilled  
30 in the art. Sustained-release capsules may, depending on their chemical nature, release

the compounds for a few weeks up to over 100 days. Depending on the chemical nature and the biological stability of the therapeutic agent, additional strategies for protein stabilization may be employed.

As the peptidomimetics of the invention may contain charged residues, they may be  
5 included in any of the above-described formulations as such or as pharmaceutically acceptable salts. Pharmaceutically acceptable salts tend to be more soluble in aqueous and other protic solvents than are the corresponding free forms.

The peptidomimetics of the invention, or compositions thereof, will generally be used  
10 in an amount effective to achieve the intended purpose. It is to be understood that the amount used will depend on a particular application.

For example, for use as a disinfectant or preservative, an antimicrobially effective amount of a peptidomimetic of the invention, or a composition thereof, is applied or added to the material to be disinfected or preserved. By antimicrobially effective  
15 amount is meant an amount of a peptidomimetic of the invention, or a composition thereof, that inhibits the growth of, or is lethal to, a target microbe population. While the antimicrobially effective amount will depend on a particular application, for use as disinfectants or preservatives the peptidomimetics of the invention, or compositions thereof, are usually added or applied to the material to be disinfected or preserved in  
20 relatively low amounts. Typically, the peptidomimetics of the invention comprise less than about 5% by weight of a disinfectant solution or material to be preserved, preferably less than 1% by weight and more preferably less than 0.1% by weight. An ordinary skilled expert will be able to determine antimicrobially effective amounts of particular peptidomimetics of the invention for particular applications without undue  
25 experimentation using, for example, the results of the in vitro assays provided in the examples.

For use to treat or prevent microbial infections or diseases related to such infections, the peptidomimetics of the invention, or compositions thereof, are administered or  
30 applied in a therapeutically effective amount. By therapeutically effective amount is

meant an amount effective in ameliorating the symptoms of, or in ameliorating, treating or preventing microbial infections or diseases related thereto. Determination of a therapeutically effective amount is well within the capacities of those skilled in the art, especially in view of the detailed disclosure provided herein.

- 5 As in the case of disinfectants and preservatives, for topical administration to treat or prevent bacterial infections and/or viral infections a therapeutically effective dose can be determined using, for example, the results of the in vitro assays provided in the examples. The treatment may be applied while the infection is visible, or even when it is not visible. An ordinary skilled expert will be able to determine therapeutically effective amounts to treat topical infections without undue experimentation.
- 10

For systemic administration, a therapeutically effective dose can be estimated initially from in vitro assays. For example, a dose can be formulated in animal models to achieve a circulating peptidomimetic concentration range that includes the  $IC_{50}$  as determined in the cell culture (i.e. the concentration of a test compound that is lethal to 50% of a cell culture). Such information can be used to more accurately determine useful doses in humans.

15

Initial dosages can also be determined from in vivo data, e.g. animal models, using techniques that are well known in the art. One having ordinary skill in the art could readily optimize administration to humans based on animal data.

20

Dosage amounts for applications as anti-infective agents may be adjusted individually to provide plasma levels of the peptidomimetics of the invention which are sufficient to maintain the therapeutic effect. Therapeutically effective serum levels may be achieved by administering multiple doses each day.

25

In cases of local administration or selective uptake, the effective local concentration of the peptidomimetics of the invention may not be related to plasma concentration. One having the ordinary skill in the art will be able to optimize therapeutically effective local dosages without undue experimentation.

30

The amount of peptidomimetics administered will, of course, be dependent on the subject being treated, on the subject's weight, the severity of the affliction, the manner of administration and the judgement of the prescribing physician.

The antimicrobial therapy may be repeated intermittently while infections are detectable or even when they are not detectable. The therapy may be provided alone  
5 or in combination with other drugs, such as for example anti-HIV agents or anti-cancer agents, or other antimicrobial agents.

Normally, a therapeutically effective dose of the peptidomimetics described herein will provide therapeutic benefit without causing substantial toxicity.

10 Toxicity of the peptidomimetics of the invention can be determined by standard pharmaceutical procedures in cell cultures or experimental animals, e.g., by determining the LD<sub>50</sub> (the dose lethal to 50% of the population) or the LD<sub>100</sub> (the dose lethal to 100% of the population). The dose ratio between toxic and therapeutic effect is the therapeutic index. Compounds which exhibit high therapeutic indices are preferred. The  
15 data obtained from these cell culture assays and animal studies can be used in formulating a dosage range that is not toxic for use in humans. The dosage of the peptidomimetics of the invention lies preferably within a range of circulating concentrations that include the effective dose with little or no toxicity. The dosage may vary within the range depending upon the dosage form employed and the route of  
20 administration utilized. The exact formulation, route of administration and dose can be chosen by the individual physician in view of the patient's condition (see, e.g. Fingl et al. **1975**, In: *The Pharmacological Basis of Therapeutics*, Ch.1, p.1).

The following Examples illustrate the present invention but are not to be construed as  
25 limiting its scope in any way.

Abbreviations:

|        |                                |
|--------|--------------------------------|
| Ac     | Acetyl;                        |
| BSA    | Bovine serum albumin;          |
| 30 Boc | <i>tert</i> -Butyloxycarbonyl; |

|    |        |                                                                                    |
|----|--------|------------------------------------------------------------------------------------|
|    | DCHA   | Dicyclohexylamine;                                                                 |
|    | DCM    | Dichloromethane;                                                                   |
|    | DEAD   | Diethyl azodicarboxylate;                                                          |
|    | DIC    | Diisopropylcarbodiimid;                                                            |
| 5  | DIPEA  | Diisopropylethylamine;                                                             |
|    | DMF    | Dimethylformamide;                                                                 |
|    | DMEM   | Dulbecco's Modified Eagle's Medium;                                                |
|    | DODT   | 3,6-dioxo-1,8-octanedithiol;                                                       |
|    | FCS    | Fetal Calf Serum;                                                                  |
| 10 | Fmoc   | Fluorenylmethyloxycarbonyl;                                                        |
|    | HATU   | O-(7-Aza-benzotriazole-1-yl)-N,N,N',N'-tetramethyluronium<br>hexafluorophosphate;  |
|    | HBSS   | Hank's Buffered Salt Solution;                                                     |
|    | HBTU   | O-(Benzotriazol-1-yl)-N,N,N',N'-tetramethyluronium<br>hexafluorophosphate;         |
| 15 | HCTU   | O-(6-Chlorobenzotriazol-1-yl)-N,N,N',N'-tetramethyluronium<br>hexafluorophosphate; |
|    | Hepes  | 4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid;                                |
|    | HFIP   | Hexafluoroisopropanol                                                              |
| 20 | HOAt   | 1-Hydroxy-7-azabenzotriazole;                                                      |
|    | IMDM   | Iscoe's Modified Dulbecco's Media;                                                 |
|    | IPE    | Isopropylether;                                                                    |
|    | iPrOH  | Isopropanol                                                                        |
|    | NMP    | N-Methyl-2-pyrrolidone;                                                            |
| 25 | NMM    | N-Methylmorpholine;                                                                |
|    | Oxyma  | Ethylcyanohydroxyiminoacetate;                                                     |
|    | PyBop® | (Benzotriazol-1-yloxy)tripyrrolidinophosphonium<br>hexafluorophosphate;            |
|    | TIS    | Triisopropylsilane;                                                                |
| 30 | TPP    | Triphenylphosphine;                                                                |

RPMI Roswell Park Memorial Institute medium;  
rt Room temperature.

## Examples

5

### 1. Peptide synthesis

#### 1.1 General synthetic procedures

A general method for the synthesis of the peptidomimetics of the present invention is exemplified in the following. This is to demonstrate the principal concept and does not limit or restrict the present invention in any way. A person skilled in the art is easily able to modify these procedures.

#### Procedure A. Coupling of the first protected amino acid residue to the resin

15 In a dried flask, 2-chlorotriethylchloride resin (polystyrene, 1% crosslinked; loading: 1.4 mMol/g) was swollen in dry DCM for 30 min (7 mL DCM per g resin). A solution of 0.8 eq of the Fmoc-protected amino acid and 6 eq of DIPEA in dry DCM/DMF (4/1) (10 mL per g resin) was added. After shaking for 2-4 h at rt the resin was filtered off and washed successively with DCM, DMF, DCM, DMF and DCM. Then a solution of dry  
20 DCM/MeOH/DIPEA (17:2:1) was added (10 mL per g resin). After shaking for 3 x 30 min the resin was filtered off in a pre-weighed sinter funnel and washed successively with DCM, DMF, DCM, MeOH, DCM, MeOH, DCM (2x) and Et<sub>2</sub>O (2x). The resin was dried under high vacuum overnight. The final mass of resin was calculated before qualitative control.  
25 Loading was typically 0.6 – 0.7 mMol/g.

#### Procedure B. Synthesis of the fully protected peptide fragment

The synthesis was carried out on a Syro-peptide synthesizer (MultiSynTech GmbH) using 24 to 576 reaction vessels. Depending on the scale used (0.005 to 0.25 mmol), the above

resin was placed into the size corresponding reactor and the resin was swollen in DCM and DMF for 15 min, respectively.

The following reaction cycles were programmed and carried out:

| 5  | Step | Reagent                                                         | Time                        |
|----|------|-----------------------------------------------------------------|-----------------------------|
|    | 1    | DCM, wash and swell                                             | 1 x 3 min                   |
|    | 2    | NMP, wash and swell                                             | 2 x 30 min                  |
|    | 3    | 20% piperidine/DMF                                              | 1 x 5 min and<br>1 x 15 min |
| 10 | 4    | NMP, wash                                                       | 5 x 1 min                   |
|    | 5    | 7.2 eq Fmoc amino acid in NMP<br>+ 6.8 eq HATU<br>+ 21.6 eq NMM | 1 x 15 min                  |
|    | 6    | 7.2 eq Fmoc amino acid in NMP<br>+ 6.8 eq HATU<br>+ 21.6 eq NMM | 1 x 15 min                  |
| 15 |      |                                                                 |                             |
|    | 7    | NMP, wash                                                       | 5 x 1 min                   |
|    | 8    | 12 eq acetic anhydride<br>+ 12 eq NMM                           | 1x5 min                     |
| 20 | 9    | 20% piperidine/DMF                                              | 2 x 2 min                   |
|    | 10   | NMP, wash                                                       | 5 x 1 min                   |
|    | 11   | DCM, wash (at the end of the synthesis)                         | 3 x 1 min                   |

Steps **5** to **10** are repeated to add each amino-acid residue. In case the N-terminal residue is a hydroxy acid residue, the same steps **5** to **9** are performed.

Standard Fmoc/tBu amino acids building blocks were used except for example 72 where Allyl/Alloc side chain protected amino acids were used in P<sup>6</sup> and P<sup>13</sup> and example 71 where alkyne and azido side chain derivatives were used in P<sup>6</sup> and P<sup>13</sup>, and example 13 where a hydroxy acid was used in P<sup>1</sup>.

**Procedure C. Cleavage/deprotection**

After assembly of the protected peptide, the resin was suspended for 1 minutes in the cocktail cleavage/deprotection TFA/anisole/thioanisole/water/TIS 82.5/5/5/5/2.5 v/v/v/v/v (20 mL/mmol of resin). After filtration, the cleavage/deprotection step was repeated twice. The combined filtrates were shaken for 3h at room temperature. The linear peptide was precipitated in cold Et<sub>2</sub>O/pentane 1/1 v/v and wash three times with the same solvent mixtures. The solid was air dried.

**Procedure D. Purification procedure (preparative reverse phase LC-MS)**

Compounds were purified by reverse phase chromatography using two column Waters BEH XBridge C8 OBD column, 30 x 150 mm , 5 µm (Cat No. 186003083) in series.

Mobile phases used were:

A: 0.1% TFA in Water/Acetonitrile 98/2 v/v

B: 0.1% TFA in Acetonitrile

Gradient slopes in the preparative runs were adapted each time based on analytical LC-MS analysis of the crude product. As an example, a typical run was executed with a flow rate of 35 mL/min running a gradient as follows:

| T (min) | Flow (ml/min) | %B  |
|---------|---------------|-----|
| 0       | 10            | 0   |
| 0.3     | 10            | 0   |
| 0.5     | 35            | 0   |
| 1       | 35            | 0   |
| 1.1     | 35            | 10  |
| 13      | 35            | 20  |
| 13.1    | 35            | 100 |
| 19.3    | 35            | 100 |
| 19.4    | 0.1           | 100 |

In this example purification the retention time of the targeted compound was 10.4 min  
Detection: MS (ESI positive 60V profile mode) and UV @ 220 nm and 254 nm  
Fractions collected were evaporated using a Genevac HT4 evaporator or a Büchi system.

## 1.2 Analytical Method

Analytical HPLC retention times (RT, in minutes) were determined on HPLC system: Thermo Scientific Ultimate 3000RS, MS: Thermo Scientific MSQ plus utilizing a Ascentis Express C8 column, 100x3 mm, 2.7  $\mu$ m, with the following solvents A (H<sub>2</sub>O+0.1% TFA) and B (CH<sub>3</sub>CN + 0.085% TFA) and the gradient was run at 55°C as follows:

| T (min) | Flow (ml/min) | %B |
|---------|---------------|----|
| 0       | 1,4           | 5  |
| 0.1     | 1,4           | 5  |
| 7       | 1,4           | 55 |
| 7.02    | 1,4           | 97 |
| 7.5     | 1,4           | 97 |
| 7.52    | 1,4           | 5  |
| 8.8     | 1,4           | 5  |

Detection: MS (ESI positive 60V profile mode) and UV @ 220 nm and 254 nm

## 1.3 Synthesis of peptide sequences

### Examples 1-52, 73-138:

The protected peptide was synthesized from C- to N-terminus. The starting amino acid functionalized resin (obtained following procedure A) used for the synthesis corresponds to P<sup>16</sup> in **Table 1**. The protected linear peptide immobilized on resin (Resin-p<sup>16</sup>-p<sup>15</sup>-p<sup>14</sup>-p<sup>13</sup>-p<sup>12</sup>-p<sup>11</sup>-p<sup>10</sup>-p<sup>9</sup>-p<sup>8</sup>-p<sup>7</sup>-p<sup>6</sup>-p<sup>5</sup>-p<sup>4</sup>-p<sup>3</sup>-p<sup>2</sup>-p<sup>1</sup>) was synthesized following procedure B. Cleavage/deprotection of the modified peptide was performed as described in procedure C. The global deprotected linear peptide was solubilized in ammonium acetate buffer 1M at pH 6 containing 5% DMSO v/v (140 mL/mmol). The peptide solution was stirred 48 h in an opened flask. The crude was purified according procedure D. Analytical data for each example are summarized in **Table 1**.

**Examples 53-68:**

The protected peptide was synthesized from C- to N-terminus. The starting amino acid functionalized resin (obtained following procedure A) used for the synthesis corresponds to P<sup>16</sup> in **Table 1**. The protected linear peptide immobilized on resin (Resin-  
5 p<sup>16</sup>-p<sup>15</sup>-p<sup>14</sup>-p<sup>13</sup>-p<sup>12</sup>-p<sup>11</sup>-p<sup>10</sup>-p<sup>9</sup>-p<sup>8</sup>-p<sup>7</sup>-p<sup>6</sup>-p<sup>5</sup>-p<sup>4</sup>-p<sup>3</sup>-p<sup>2</sup>-p<sup>1</sup>) was synthesized following procedure B. Subsequently, the resin was swollen in DMF and N,N'-bis-Boc-guanylpurazole (10 eq) in DMSO/DMF 1/1 v/v was added to the resin. The reaction was shaken overnight and the resin was thoroughly washed with DMF and DCM. Cleavage/deprotection of the modified peptide was performed as described in  
10 procedure C. The deprotected linear peptide was solubilized in ammonium acetate buffer 1M at pH 6 containing 5% DMSO v/v (140 mL/mmol). The peptide solution was stirred 48 h in an opened flask. The crude was purified according procedure D. Analytical data for each example are summarized in **Table 1**.

**Example 69-70:**

The protected peptide was synthesized from C- to N-terminus. The starting amino acid functionalized resin (obtained following procedure A) used for the synthesis corresponds to P<sup>16</sup> in **Table 1**. The protected linear peptide immobilized on resin (Resin-  
p<sup>16</sup>-p<sup>15</sup>-p<sup>14</sup>-p<sup>13</sup>-p<sup>12</sup>-p<sup>11</sup>-p<sup>10</sup>-p<sup>9</sup>-p<sup>8</sup>-p<sup>7</sup>-p<sup>6</sup>-p<sup>5</sup>-p<sup>4</sup>-p<sup>3</sup>-p<sup>2</sup>-p<sup>1</sup>) was synthesized following  
20 procedure B. Subsequently, the resin was swollen in NMP and HATU (11.4 eq) and NMM (24 eq) were added to the resin. The reaction was shaken 1h and the resin was thoroughly washed with DMF and DCM. Cleavage/deprotection of the modified peptide was performed as described in procedure C. The deprotected linear peptide obtained was solubilized in ammonium acetate buffer 1M at pH 6 containing 5% DMSO v/v (140  
25 mL/mmol). The peptide solution was stirred 48 h in an opened flask. The crude was purified according procedure D. Analytical data for each example are summarized in **Table 1**.

**Example 71:**

The protected peptide was synthesized from C to N-terminus. The amino acid functionalized resin (obtained following procedure A) used for the synthesis corresponds to P<sup>16</sup> in **Table 1**. The protected linear peptide immobilized on resin (Resin-  
5 p<sup>16</sup>-p<sup>15</sup>-p<sup>14</sup>-p<sup>13</sup>-p<sup>12</sup>-p<sup>11</sup>-p<sup>10</sup>-p<sup>9</sup>-p<sup>8</sup>-p<sup>7</sup>-p<sup>6</sup>-p<sup>5</sup>-p<sup>4</sup>-p<sup>3</sup>-p<sup>2</sup>-p<sup>1</sup>) was synthesized following procedure B. Cleavage/deprotection of the modified peptide was performed as described in procedure C. The linear peptide was purified according procedure D. The purified peptide containing a side chain alkyne moiety and a side chain azido moiety was dissolved in degassed ammonium acetate buffer 1M pH 8 and added dropwise over a  
10 freshly prepared solution of CuSO<sub>4</sub>·5 H<sub>2</sub>O (4.4 eq) and L(+)-ascorbic acid (5.8 eq). After 20 min, the solution was acidified with TFA to pH 4 and directly purified according procedure D. Analytical data for each example are summarized in **Table 1**.

**Example 72:**

15 The protected peptide was synthesized from C to N-terminus. The amino acid functionalized resin (obtained following procedure A) used for the synthesis corresponds to P<sup>16</sup> in **Table 1**. Following assembly of the protected peptide following procedure B until P<sup>6</sup> bearing the N-terminus Fmoc protection (Resin-p<sup>16</sup>-p<sup>15</sup>-p<sup>14</sup>-p<sup>13</sup>-p<sup>12</sup>-p<sup>11</sup>-p<sup>10</sup>-p<sup>9</sup>-p<sup>8</sup>-p<sup>7</sup>-P<sup>6</sup>-Fmoc), the resin was swollen in DCM for at least 15 min. To selectively  
20 remove alloc- and allyl-protecting groups in P<sup>6</sup> and P<sup>13</sup> from amino and carboxyl functional groups, respectively, 0.2 eq tetrakis(triphenyl-phosphine)palladium(0) (10 mM) in dry DCM and 10 eq DMBA were added. After shaking the reaction mixture for 5 min at rt, the resin was filtered off and wash NMP, iPrOH, IPE and DCM. A fresh solution of reagents was added to repeat the procedure. Following subsequent washing of the  
25 resin with NMP, iPrOH, IPE and DCM, the resin was swollen DCM. 2 eq of Oxyma solubilized in dry DCM were added to the resin followed by 4 eq of DIC in dry DCM. After 1h, 2 eq of DIC were added in dry DCM. After stirring the reaction mixture overnight, the resin was filtered and washed thoroughly with DCM and NMP. The elongation of the peptide was continued following procedure A (P<sup>5</sup> to P<sup>1</sup>). Cleavage/deprotection of the

modified peptide was performed as described in procedure C and purified following procedure D. Analytical data for each example are summarized in **Table 1**.

1.4 Sequence data

Table 1 Example sequences and analytical data

| Example n° | N <sub>term</sub> | P1 | P2                        | P3 | P4  | P5 | P6  | P7 | P8 | P9  | P10 | P11 | P12 | P13 | P14 | P15 | P16 | RT in min | [M+nH] <sup>+/n</sup> | n |
|------------|-------------------|----|---------------------------|----|-----|----|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----------------------|---|
| 1          |                   | V  | P                         | I  | I   | Y  | C   | N  | R  | R   | T   | Dab | K   | C   | Dab | R   | Nle | 3.14      | 966.9                 | 2 |
| 2          |                   | V  | Pro((4R)NH <sub>2</sub> ) | I  | I   | Y  | Pen | N  | R  | R   | T   | Dab | K   | C   | Dab | R   | Nle | 3.00      | 659.4                 | 3 |
| 3          |                   | V  | Pro((4R)NH <sub>2</sub> ) | I  | I   | Y  | Pen | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Nle | 2.95      | 640.5                 | 3 |
| 4          |                   | V  | Ndab                      | I  | I   | Y  | Pen | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Nle | 2.96      | 636.7                 | 3 |
| 5          |                   | V  | Pro((4R)NH <sub>2</sub> ) | I  | T   | Y  | Pen | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Nle | 2.84      | 636.8                 | 3 |
| 6          |                   | V  | P                         | I  | I   | Y  | C   | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Cha | 3.48      | 639.7                 | 3 |
| 7          |                   | V  | P                         | I  | I   | Y  | Pen | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Y   | 2.92      | 652.4                 | 3 |
| 8          |                   | V  | P                         | I  | I   | Y  | C   | N  | R  | Dab | T   | Dab | K   | Pen | Dab | R   | Y   | 3.03      | 652.4                 | 3 |
| 9          |                   | V  | Pro((4R)NH <sub>2</sub> ) | I  | I   | Y  | C   | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Y   | 2.66      | 648.0                 | 3 |
| 10         |                   | V  | Hyp                       | I  | I   | Y  | C   | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Y   | 2.73      | 648.3                 | 3 |
| 11         |                   | V  | P                         | I  | T   | Y  | C   | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Y   | 2.63      | 639.2                 | 3 |
| 12         |                   | V  | P                         | I  | F   | Y  | C   | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Y   | 2.97      | 654.4                 | 3 |
| 13         | 2OHVal            | V  | P                         | I  | I   | Y  | C   | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Y   | 3.48      | 643                   | 3 |
| 14         |                   | V  | Hyp                       | I  | I   | Y  | Pen | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Y   | 2.79      | 657.7                 | 3 |
| 15         |                   | V  | Hyp                       | I  | T   | Y  | Pen | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Y   | 2.56      | 653.7                 | 3 |
| 16         |                   | V  | Hyp                       | I  | T   | Y  | Pen | N  | R  | Dab | T   | Dap | K   | C   | Dab | R   | Y   | 2.49      | 487.4                 | 4 |
| 17         |                   | V  | Hyp                       | I  | T   | Y  | Pen | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Y   | 2.47      | 658.9                 | 3 |
| 18         |                   | V  | Hyp                       | I  | T   | Y  | Pen | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Y   | 2.49      | 663.5                 | 3 |
| 19         |                   | V  | Hyp                       | I  | T   | Y  | Pen | N  | R  | Dab | T   | Dab | K   | C   | Dab | R   | Y   | 2.51      | 672.9                 | 3 |
| 20         |                   | V  | Hyp                       | I  | Dab | Y  | Pen | N  | R  | Dab | T   | Dab | K   | C   | Dab | T   | Y   | 2.50      | 476.8                 | 4 |
| 21         |                   | V  | Hyp                       | I  | R   | Y  | Pen | N  | R  | Dab | T   | Dab | K   | C   | Dab | T   | Y   | 2.59      | 490.8                 | 4 |

Table 1, continued

| Example n° | N <sup>term</sup> | P1 | P2  | P3 | P4  | P5 | P6  | P7 | P8 | P9  | P10 | P11              | P12 | P13 | P14 | P15 | P16 | RT in min | [M+nH] <sup>n+/n</sup> | n |
|------------|-------------------|----|-----|----|-----|----|-----|----|----|-----|-----|------------------|-----|-----|-----|-----|-----|-----------|------------------------|---|
| 22         |                   | V  | Hyp | I  | Y   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.61      | 674.8                  | 3 |
| 23         |                   | V  | Hyp | I  | L   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.68      | 493.8                  | 4 |
| 24         |                   | V  | Hyp | I  | N   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.38      | 494.2                  | 4 |
| 25         |                   | V  | Hyp | I  | Dab | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.35      | 490.5                  | 4 |
| 26         |                   | V  | Hyp | I  | K   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.39      | 497.7                  | 4 |
| 27         |                   | V  | Hyp | I  | T   | W  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.81      | 661.8                  | 3 |
| 28         |                   | V  | Hyp | I  | T   | Y  | Pen | A  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.53      | 480.0                  | 4 |
| 29         |                   | V  | Hyp | I  | T   | Y  | Pen | L  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.91      | 653.8                  | 3 |
| 30         |                   | V  | Hyp | I  | T   | Y  | Pen | I  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.79      | 490.4                  | 4 |
| 31         |                   | V  | Hyp | I  | T   | Y  | Pen | S  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.52      | 483.9                  | 4 |
| 32         |                   | V  | Hyp | I  | T   | Y  | Pen | T  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.48      | 487.4                  | 4 |
| 33         |                   | V  | Hyp | I  | T   | Y  | Pen | K  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.37      | 658.9                  | 3 |
| 34         |                   | V  | Hyp | I  | T   | Y  | Pen | N  | R  | K   | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.49      | 663.7                  | 3 |
| 35         |                   | V  | Hyp | I  | T   | Y  | Pen | N  | R  | R   | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.55      | 672.9                  | 3 |
| 36         |                   | V  | Hyp | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | I   | C   | Dab | R   | Y   | 2.54      | 649.2                  | 3 |
| 37         |                   | V  | Hyp | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | S   | C   | Dab | R   | Y   | 2.45      | 640.7                  | 3 |
| 38         |                   | V  | Hyp | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | Y   | C   | Dab | R   | Y   | 2.54      | 665.5                  | 3 |
| 39         |                   | V  | Hyp | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | W   | C   | Dab | R   | Y   | 2.77      | 673.4                  | 3 |
| 40         |                   | V  | Hyp | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | N   | C   | Dab | R   | Y   | 2.45      | 488.3                  | 4 |
| 41         |                   | V  | Hyp | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | Dab | C   | Dab | R   | Y   | 2.50      | 483.8                  | 4 |
| 42         |                   | V  | Hyp | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | L   | Y   | 2.98      | 639.9                  | 3 |
| 43         |                   | V  | Hyp | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | S   | Y   | 2.58      | 631.0                  | 3 |
| 44         |                   | V  | Hyp | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | Dab | Y   | 2.47      | 635.7                  | 3 |

Table 1, continued

| Example n° | N <sub>term</sub> | P1 | P2                        | P3 | P4  | P5 | P6  | P7  | P8 | P9  | P10 | P11              | P12 | P13 | P14 | P15 | P16 | RT in min | [M+nH] <sup>n+</sup> /n | n |
|------------|-------------------|----|---------------------------|----|-----|----|-----|-----|----|-----|-----|------------------|-----|-----|-----|-----|-----|-----------|-------------------------|---|
| 45         |                   | V  | Hyp                       | I  | I   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | K   | Y   | 2.46      | 483.7                   | 4 |
| 46         |                   | V  | Hyp                       | I  | T   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | Orn | Y   | 2.47      | 480.3                   | 4 |
| 47         |                   | V  | Hyp                       | I  | T   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | Cit | C   | Dab | R   | Y   | 2.47      | 663.9                   | 3 |
| 48         | NMeVal            |    | Hyp                       | I  | T   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 2.52      | 494.3                   | 4 |
| 49         |                   | V  | Hyp                       | I  | T   | Y  | Pen | Dap | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 2.42      | 483.7                   | 4 |
| 50         |                   | V  | Hyp                       | I  | Dap | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 2.34      | 487.0                   | 4 |
| 51         |                   | V  | Hyp                       | I  | R   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 2.42      | 672.5                   | 3 |
| 52         |                   | V  | Pro((4R)NH <sub>2</sub> ) | I  | T   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Y   | R   | Y   | 2.75      | 674.9                   | 3 |
| 53         | Gua               | V  | P                         | I  | I   | Y  | C   | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 3.09      | 656.9                   | 3 |
| 54         | Gua               | V  | P                         | I  | I   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 3.10      | 666.5                   | 3 |
| 55         | Gua               | V  | Hyp                       | I  | T   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 2.81      | 667.8                   | 3 |
| 56         | Gua               | V  | Hyp                       | I  | I   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 2.99      | 671.8                   | 3 |
| 57         | Gua               | V  | Pro((4R)NH <sub>2</sub> ) | I  | T   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 2.78      | 667.0                   | 3 |
| 58         | Gua               | V  | Pro((4R)NH <sub>2</sub> ) | I  | I   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 2.94      | 671.7                   | 3 |
| 59         | Gua               | V  | Hyp                       | I  | Y   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Q   | R   | Y   | 2.92      | 698.2                   | 3 |
| 60         | Gua               | V  | Hyp                       | I  | T   | Y  | Pen | E   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 2.77      | 673.2                   | 3 |
| 61         | Gua               | V  | Hyp                       | I  | T   | Y  | Pen | H   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 2.67      | 675.9                   | 3 |
| 62         | Gua               | V  | Hyp                       | I  | T   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | Dab | C   | Dab | R   | Y   | 2.77      | 658.9                   | 3 |
| 63         | Gua               | V  | Hyp                       | I  | T   | Y  | Pen | N   | R  | Dab | S   | <sup>0</sup> Dab | K   | C   | Dab | R   | Y   | 2.74      | 663.5                   | 3 |
| 64         | Gua               | V  | Hyp                       | I  | T   | Y  | Pen | N   | R  | Dab | S   | <sup>0</sup> Dab | K   | C   | Dab | Dab | Y   | 2.72      | 483.9                   | 4 |
| 65         | Gua               | V  | Hyp                       | I  | T   | Y  | Pen | N   | R  | Dab | S   | <sup>0</sup> Dab | K   | C   | Dab | Orn | Y   | 2.72      | 487.2                   | 4 |
| 66         | Gua               | V  | Pro((4R)NH <sub>2</sub> ) | I  | T   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Y   | R   | Y   | 2.98      | 688.9                   | 3 |
| 67         | Gua               | V  | Pro((4R)NH <sub>2</sub> ) | I  | I   | Y  | Pen | N   | R  | Dab | T   | <sup>0</sup> Dab | K   | C   | Y   | R   | Y   | 3.09      | 692.9                   | 3 |

Table 1, continued

| Example no. | N <sub>term</sub> | P1 | P2  | P3 | P4      | P5 | P6  | P7 | P8 | P9  | P10 | P11              | P12 | P13                   | P14 | P15 | P16 | RT in min | [M+nH] <sup>n+</sup> /n | n |
|-------------|-------------------|----|-----|----|---------|----|-----|----|----|-----|-----|------------------|-----|-----------------------|-----|-----|-----|-----------|-------------------------|---|
| 68          | Gua               | V  | Hyp | I  | alloThr | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C                     | Y   | R   | Y   | 3.05      | 689.3                   | 3 |
| 69          | TMG               | V  | P   | I  | I       | Y  | C   | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C                     | Dab | R   | Y   | 3.24      | 675.7                   | 3 |
| 70          | TMG               | V  | Hyp | I  | T       | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C                     | Dab | R   | Y   | 2.92      | 686.8                   | 3 |
| 71          | V                 | V  | Hyp | I  | I       | Y  | Pra | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | Abu(4N <sub>3</sub> ) | Dab | R   | Y   | 2.76      | 653.9                   | 3 |
| 72          | V                 | V  | Hyp | I  | I       | Y  | D   | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | Dab                   | Dab | R   | Y   | 2.71      | 646.5                   | 3 |
| 73          | V                 | V  | Hyp | I  | I       | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C                     | Dab | Cit | Y   | 2.85      | 658.0                   | 3 |
| 74          | V                 | V  | Hyp | I  | I       | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C                     | Dab | Dab | Y   | 2.74      | 638.9                   | 3 |
| 75          | V                 | V  | Hyp | I  | I       | Y  | Pen | N  | R  | Dab | S   | <sup>b</sup> Dab | K   | C                     | Dab | R   | Y   | 2.62      | 652.9                   | 3 |
| 76          | V                 | V  | Hyp | I  | I       | Y  | Pen | N  | R  | Dab | S   | <sup>b</sup> Dab | K   | C                     | Dab | Dab | Y   | 2.66      | 634.2                   | 3 |
| 77          | V                 | V  | Hyp | I  | T       | Y  | Pen | N  | R  | Dab | S   | <sup>b</sup> Dab | K   | C                     | Dab | Dab | Y   | 2.31      | 630.4                   | 3 |
| 78          | V                 | V  | Hyp | I  | I       | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | Orn | C                     | Dab | R   | Y   | 2.73      | 653.2                   | 3 |
| 79          | Abu               | V  | Hyp | I  | I       | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C                     | Dab | R   | Y   | 2.71      | 653.0                   | 3 |
| 80          | V                 | V  | P   | I  | T       | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C                     | Dab | R   | Y   | 2.63      | 648.3                   | 3 |
| 81          | V                 | V  | Hyp | I  | Dab     | Y  | Pen | N  | R  | Dab | S   | <sup>b</sup> Dab | K   | C                     | Dab | Dab | Y   | 2.13      | 629.8                   | 3 |
| 82          | V                 | V  | Hyp | I  | I       | Y  | Pen | N  | R  | K   | T   | <sup>b</sup> Dab | K   | C                     | K   | R   | Y   | 2.47      | 676.5                   | 3 |
| 83          | V                 | V  | Hyp | I  | I       | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | I   | C                     | Dab | Dab | Y   | 2.77      | 634.0                   | 3 |
| 84          | V                 | V  | Hyp | I  | I       | Y  | Pen | N  | R  | Dab | S   | <sup>b</sup> Dab | I   | C                     | Dab | Dab | Y   | 2.82      | 629.3                   | 3 |
| 85          | V                 | V  | Hyp | I  | I       | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C                     | Dab | Orn | Y   | 2.56      | 643.5                   | 3 |
| 86          | V                 | V  | Hyp | I  | I       | Y  | Pen | N  | R  | Dab | S   | <sup>b</sup> Dab | K   | C                     | Dab | Orn | Y   | 2.56      | 639.0                   | 3 |
| 87          | V                 | V  | Hyp | I  | I       | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | I   | C                     | Dab | R   | Y   | 2.80      | 652.8                   | 3 |
| 88          | V                 | V  | Hyp | I  | T       | Y  | Pen | I  | R  | Dab | T   | <sup>b</sup> Dab | K   | C                     | Dab | Orn | Y   | 2.51      | 958.7                   | 3 |
| 89          | V                 | V  | Hyp | I  | Dab     | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C                     | Dab | Orn | Y   | 1.93      | 639.5                   | 3 |

Table 1, continued

| Example n° | N <sub>term</sub> | P1 | P2                        | P3 | P4  | P5 | P6  | P7 | P8 | P9  | P10 | P11              | P12 | P13 | P14 | P15 | P16 | RT in min | [M+nH] <sup>+/n</sup> | n |
|------------|-------------------|----|---------------------------|----|-----|----|-----|----|----|-----|-----|------------------|-----|-----|-----|-----|-----|-----------|-----------------------|---|
| 90         |                   | V  | Pro((4R)NH <sub>2</sub> ) | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | I   | C   | Dab | R   | Y   | 2.73      | 652.5                 | 3 |
| 91         |                   | V  | Pro((4R)NH <sub>2</sub> ) | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | Cit | C   | Dab | R   | Y   | 2.65      | 667.2                 | 3 |
| 92         |                   | V  | Hyp                       | I  | T   | Y  | Pen | I  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | S   | Orn | Y   | 2.64      | 952.2                 | 3 |
| 93         |                   | V  | Pro((4R)NH <sub>2</sub> ) | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | S   | R   | Y   | 2.70      | 652.9                 | 3 |
| 94         |                   | V  | Hyp                       | I  | T   | Y  | Pen | N  | R  | Dab | S   | <sup>b</sup> Dab | K   | C   | Dab | Orn | Y   | 2.31      | 634.8                 | 3 |
| 95         | tBuGly            |    | Hyp                       | I  | T   | Y  | Pen | I  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | Orn | Y   | 3.00      | 644.0                 | 3 |
| 96         | V                 |    | Hyp                       | I  | I   | Y  | Pen | N  | R  | Dab | S   | <sup>b</sup> Dab | I   | C   | Dab | Orn | Y   | 2.82      | 634.0                 | 3 |
| 97         | V                 |    | Hyp                       | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | I   | C   | Dab | Orn | Y   | 2.81      | 638.7                 | 3 |
| 98         | V                 |    | Hyp                       | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | Cit | C   | Dab | R   | Y   | 2.82      | 667.3                 | 3 |
| 99         | V                 |    | Hyp                       | I  | T   | Y  | Pen | I  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | S   | Y   | 2.67      | 630.5                 | 3 |
| 100        | V                 |    | Pro((4R)NH <sub>2</sub> ) | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | S   | Y   | 2.71      | 634.5                 | 3 |
| 101        | V                 |    | Hyp                       | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | S   | C   | Dab | R   | Y   | 2.49      | 644.2                 | 3 |
| 102        | V                 |    | Pro((4R)NH <sub>2</sub> ) | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | Cit | C   | Dab | S   | Y   | 2.51      | 640.2                 | 3 |
| 103        | V                 |    | Pro((4R)NH <sub>2</sub> ) | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | S   | S   | Y   | 2.53      | 626.2                 | 3 |
| 104        | V                 |    | Hyp                       | I  | T   | Y  | Pen | I  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | S   | R   | Y   | 2.68      | 649.2                 | 3 |
| 105        | V                 |    | Hyp                       | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | S   | Y   | 2.74      | 634.5                 | 3 |
| 106        | V                 |    | Pro((4R)NH <sub>2</sub> ) | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | Cit | C   | Dab | S   | Y   | 2.79      | 643.9                 | 3 |
| 107        | V                 |    | Hyp                       | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | S   | R   | Y   | 2.80      | 653.4                 | 3 |
| 108        | V                 |    | Hyp                       | I  | Dab | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | Cit | C   | Dab | S   | Y   | 2.42      | 640.2                 | 3 |
| 109        | V                 |    | Pro((4R)NH <sub>2</sub> ) | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | T   | Y   | 2.81      | 639.4                 | 3 |
| 110        | V                 |    | Pro((4R)NH <sub>2</sub> ) | I  | T   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | S   | R   | Y   | 2.45      | 649.2                 | 3 |
| 111        | V                 |    | Hyp                       | I  | I   | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | T   | Y   | 2.87      | 639.2                 | 3 |

Table 1, continued

| Example n° | N <sub>term</sub> | P1     | P2                        | P3 | P4       | P5 | P6  | P7 | P8 | P9  | P10 | P11              | P12 | P13 | P14 | P15 | P16 | RT in min | [M+nH] <sup>n+</sup> /n | n |
|------------|-------------------|--------|---------------------------|----|----------|----|-----|----|----|-----|-----|------------------|-----|-----|-----|-----|-----|-----------|-------------------------|---|
| 112        |                   | V      | Hyp                       | I  | I        | Y  | Pen | N  | R  | Dab | S   | <sup>b</sup> Dab | K   | C   | Dab | T   | Y   | 2.87      | 634.5                   | 3 |
| 113        |                   | V      | Hyp                       | I  | Dab      | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | Cit | C   | Dab | T   | Y   | 2.47      | 644.9                   | 3 |
| 114        |                   | tBuGly | Hyp                       | I  | I        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.96      | 662.3                   | 3 |
| 115        |                   | V      | Pro((4R)NH <sub>2</sub> ) | I  | I        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | I   | C   | Dab | T   | Y   | 2.93      | 634.2                   | 3 |
| 116        |                   | V      | Pro((4R)NH <sub>2</sub> ) | I  | T        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | Cit | C   | Dab | T   | Y   | 2.56      | 644.8                   | 3 |
| 117        |                   | V      | Pro((4R)NH <sub>2</sub> ) | I  | T        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | I   | C   | Dab | T   | Y   | 2.63      | 630.2                   | 3 |
| 118        |                   | V      | Hyp                       | I  | I        | Y  | Pen | N  | R  | Dab | S   | <sup>b</sup> Dab | I   | C   | Dab | R   | Y   | 2.89      | 648.0                   | 3 |
| 119        |                   | V      | Pro((4R)NH <sub>2</sub> ) | I  | T        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | S   | T   | Y   | 2.46      | 630.5                   | 3 |
| 120        |                   | V      | Pro((4R)NH <sub>2</sub> ) | I  | T        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | T   | Y   | 2.57      | 635.4                   | 3 |
| 121        |                   | V      | Hyp                       | I  | I        | Y  | Pen | N  | R  | Orn | T   | <sup>b</sup> Dab | I   | C   | Dab | R   | Y   | 2.89      | 657.3                   | 3 |
| 122        |                   | V      | Hyp                       | I  | Orn      | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | T   | Y   | 2.58      | 639.7                   | 3 |
| 123        |                   | V      | Hyp                       | I  | T        | Y  | Pen | I  | R  | Dab | T   | <sup>b</sup> Dab | Orn | C   | Dab | R   | Y   | 2.87      | 648.8                   | 3 |
| 124        |                   | V      | Hyp                       | I  | I        | Y  | Pen | N  | R  | Cit | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.67      | 676.5                   | 3 |
| 125        |                   | V      | Hyp                       | I  | Lys(Me)  | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.27      | 667.2                   | 3 |
| 126        |                   | V      | Hyp                       | I  | Val(3OH) | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.26      | 658.5                   | 3 |
| 127        |                   | V      | Pro(4,4F <sub>2</sub> )   | I  | T        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.71      | 660.3                   | 3 |
| 128        |                   | V      | Pro(3,4dehydro)           | I  | T        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.60      | 647.7                   | 3 |
| 129        |                   | V      | Pro((4R)OPh)              | I  | T        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 3.05      | 679.0                   | 3 |
| 130        |                   | V      | Pro((4R)OMe)              | I  | T        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.62      | 658.3                   | 3 |
| 131        |                   | V      | Pro((4R)F)                | I  | T        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.58      | 654.3                   | 3 |
| 132        |                   | V      | Pic                       | I  | T        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.84      | 652.9                   | 3 |
| 133        |                   | V      | Nallothr                  | I  | T        | Y  | Pen | N  | R  | Dab | T   | <sup>b</sup> Dab | K   | C   | Dab | R   | Y   | 2.90      | 654.3                   | 3 |

Table 1, continued

| Example<br>no | N <sub>term</sub> | P1 | P2  | P3 | P4 | P5 | P6  | P7 | P8 | P9       | P10 | P11                   | P12 | P13 | P14      | P15      | P16 | RT in min | [M+nH] <sup>n+</sup> /<br>n | n |
|---------------|-------------------|----|-----|----|----|----|-----|----|----|----------|-----|-----------------------|-----|-----|----------|----------|-----|-----------|-----------------------------|---|
| 134           |                   | V  | Hyp | I  | T  | Y  | Pen | N  | R  | Dab(iPr) | T   | <sup>D</sup> Dab      | K   | C   | Dab      | Orn(iPr) | Y   | 2.76      | 667.7                       | 3 |
| 135           |                   | V  | Hyp | I  | T  | Y  | Pen | N  | R  | Dab(iPr) | T   | <sup>D</sup> Dab      | K   | C   | Dab(iPr) | R        | Y   | 2.89      | 681.7                       | 3 |
| 136           |                   | V  | Hyp | I  | T  | Y  | Pen | N  | R  | Dab      | T   | <sup>D</sup> Dab      | K   | C   | Dab      | Orn(iPr) | Y   | 2.63      | 653.7                       | 3 |
| 137           |                   | V  | Hyp | I  | T  | Y  | Pen | I  | R  | Dab      | T   | <sup>D</sup> Dab      | K   | C   | Dab      | Orn(iPr) | Y   | 2.93      | 653.3                       | 3 |
| 138           |                   | V  | Hyp | I  | T  | Y  | Pen | N  | R  | Dab      | T   | <sup>D</sup> Dab(iPr) | K   | C   | Dab      | R        | Y   | 2.62      | 667.7                       | 3 |

Notes to Table 1:

- Abbreviations of amino acid/amino acid residue or derivatives thereof: see listing above;
- The sequences of Examples 1 – 70 have disulfide bridges between P<sup>6</sup> and P<sup>13</sup>, as described above;
- The sequence of Example 71 has a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>, as described above;
- The sequence of Example 72 has a lactam bridge between P<sup>6</sup> and P<sup>13</sup>, as described above.
- The purities of the Examples 1 - 138 are above 75%.

## 2. Biological methods

### 2.1. Preparation of the peptides

Lyophilized peptides were weighed on a Microbalance (Mettler MT5) and dissolved in  
5 sterile water to a final concentration of 1 mg/mL. Stock solutions were kept at +4 °C,  
light protected.

### 2.2. Antimicrobial activity of the peptides

The selective antimicrobial activities of the peptides were determined in 96-well plates  
10 (Greiner, polystyrene) by the standard CLSI broth microdilution method (Clinical and  
Laboratory Standards Institute. *Methods for Dilution Antimicrobial Susceptibility Tests  
for Bacteria That Grow Aerobically; Approved Standard—Ninth Edition*. CLSI document  
M07-A9 (ISBN 1-56238-783-9 [Print]; ISBN 1-56238-784-7 [Electronic]). Clinical and  
Laboratory Standards Institute, 950 West Valley Road, Suite 2500, Wayne, Pennsylvania  
15 19087, USA, 2012) with slight modifications.

Colonies of the microorganisms were diluted in saline (0.85%, NaCl) and and adjusted  
using a McFarland reader (bioMérieux SA, Marcy-l'Etoile, France) to 0.5 McFarland  
standard. Subsequently, the bacterial suspension was diluted in Mueller-Hinton II (MHII,  
cation adjusted) broth to give approximately  $5 \times 10^5$  colony forming units (CFU/mL).  
20 Inocula of the microorganisms were diluted into Mueller-Hinton II (MH, cation adjusted)  
broth and compared with a 0.5 McFarland standard to give appr.  $10^6$  colony forming  
units (CFU)/mL. Aliquots (90 µl) of inoculate were added to 10 µl of water + P-80  
(Polysorbate 80, 0.002% final concentration) containing the peptide in serial two-fold  
dilutions at 10 fold final concentration. The following microorganisms were used to  
25 determine antibiotic selectivity of the peptides: *Escherichia coli* ATCC 25922, *Escherichia  
coli* MCR-1 Af 45 and *Klebsiella pneumoniae* SSI3010. Antimicrobial activities of the  
peptides were expressed as the minimal inhibitory concentration (MIC) in µg/mL at  
which no visible growth was observed after 18-20 hours of incubation at 35 °C.

### 2.3. Hemolysis

The peptides were tested for their hemolytic activity against human red blood cells (hRBC). Fresh hRBC were washed three times with phosphate buffered saline (PBS) and centrifuged for 5 min at 3000 x g. Compounds (200 µg/mL) were incubated with 20%  
5 hRBC (v/v) for 1 h at 37 °C and shaking at 300 rpm. A value of 0% and 100% cell lyses, respectively, was determined by incubation of hRBC in the presence of PBS and 2.5% Triton X-100 in H<sub>2</sub>O, respectively. The samples were centrifuged, the supernatants were 8-fold diluted in PBS buffer and the optical densities (OD) were measured at 540 nm. The 100% lyses value (OD<sub>540</sub>H<sub>2</sub>O) gave an OD<sub>540</sub> of approximately 0.5-1.0.  
10 Percent hemolysis was calculated as follows: (OD<sub>540</sub>peptide/OD<sub>540</sub>H<sub>2</sub>O) x100%.

The results of the experiments described in **2.2 – 2.3** are indicated in **Table 2** herein below.

**Table 2: Minimal inhibitory concentrations (MIC) in Mueller-Hinton broth II  
and hemolysis**

| Example n° | <i>Escherichia coli</i><br>ATCC 25922<br>MIC [mg/L] | <i>Escherichia coli</i><br>MCR-1 Af 45<br>MIC [mg/L] | <i>Klebsiella pneumoniae</i><br>SSI3010<br>MIC [mg/L] | Hemolysis<br>at 0.2 g/L [%] |
|------------|-----------------------------------------------------|------------------------------------------------------|-------------------------------------------------------|-----------------------------|
| Thanatin   | 2                                                   | 1                                                    | 2                                                     | 0                           |
| 1          | 0.0625                                              | 0.0625                                               | 0.125                                                 | 0                           |
| 2          | 0.0625                                              | 0.0625                                               | 0.125                                                 | 0                           |
| 3          | 0.125                                               | 0.0625                                               | 0.125                                                 | 0                           |
| 4          | 0.125                                               | 0.0625                                               | 0.25                                                  | 0                           |
| 5          | 0.125                                               | 0.0625                                               | 0.25                                                  | 0                           |
| 6          | 0.0625                                              | 0.0625                                               | 0.125                                                 | 0                           |
| 7          | 0.0625                                              | 0.0625                                               | 0.125                                                 | 0                           |
| 8          | 0.0625                                              | 0.0625                                               | 0.25                                                  | 0                           |
| 9          | 0.125                                               | 0.0625                                               | 0.0625                                                | 0                           |
| 10         | 0.0625                                              | 0.03125                                              | 0.125                                                 | 0                           |
| 11         | 0.0625                                              | 0.25                                                 | 0.125                                                 | 0                           |
| 12         | 0.0625                                              | 0.0625                                               | 0.125                                                 | 0                           |
| 13         | 0.5                                                 | 0.5                                                  | 0.5                                                   | 0                           |
| 14         | 0.125                                               | 0.0625                                               | 0.25                                                  | 0                           |
| 15         | ≤0.125                                              | 0.125                                                | 0.25                                                  | 0                           |
| 16         | 0.25                                                | 0.25                                                 | 0.5                                                   | 0                           |
| 17         | 0.25                                                | 0.125                                                | 0.5                                                   | 0                           |
| 18         | 0.25                                                | 0.25                                                 | 0.5                                                   | 0                           |
| 19         | 0.25                                                | 0.25                                                 | 0.25                                                  | 0                           |
| 20         | 0.125                                               | 0.5                                                  | 0.5                                                   | 0                           |
| 21         | 0.25                                                | 0.25                                                 | 0.5                                                   | 0                           |
| 22         | 0.125                                               | 0.0625                                               | 0.25                                                  | 0                           |
| 23         | 0.25                                                | 0.25                                                 | 0.5                                                   | 0                           |
| 24         | 0.125                                               | 0.125                                                | 0.5                                                   | 0                           |
| 25         | 0.125                                               | 0.125                                                | 0.5                                                   | 0                           |
| 26         | 0.125                                               | 0.25                                                 | 0.5                                                   | 0                           |
| 27         | 0.25                                                | 0.25                                                 | 0.5                                                   | 0                           |
| 28         | 0.25                                                | 0.125                                                | 0.5                                                   | 0                           |
| 29         | 0.25                                                | 0.125                                                | 0.25                                                  | 0                           |
| 30         | 0.125                                               | 0.125                                                | 0.5                                                   | 0                           |
| 31         | 0.125                                               | 0.25                                                 | 0.25                                                  | 0                           |
| 32         | 0.125                                               | 0.125                                                | 0.5                                                   | 0                           |
| 33         | 0.25                                                | 0.125                                                | 0.5                                                   | 0                           |
| 34         | 0.25                                                | 0.125                                                | 0.5                                                   | 0                           |
| 35         | 0.125                                               | 0.5                                                  | 0.25                                                  | 0                           |
| 36         | 0.5                                                 | 0.25                                                 | 0.5                                                   | 0                           |
| 37         | 0.25                                                | 0.5                                                  | 0.5                                                   | 0                           |
| 38         | 0.5                                                 | 0.5                                                  | 0.25                                                  | 0                           |
| 39         | 0.5                                                 | 0.5                                                  | 0.5                                                   | 0                           |
| 40         | 0.25                                                | 0.25                                                 | 0.5                                                   | 0                           |

Table 2, continued

| Example n° | <i>Escherichia coli</i><br>ATCC 25922<br>MIC [mg/L] | <i>Escherichia coli</i><br>MCR-1 Af 45<br>MIC [mg/L] | <i>Klebsiella pneumoniae</i><br>SSI3010<br>MIC [mg/L] | Hemolysis<br>at 0.2 g/L [%] |
|------------|-----------------------------------------------------|------------------------------------------------------|-------------------------------------------------------|-----------------------------|
| 41         | 0.125                                               | 0.0625                                               | 0.25                                                  | 0                           |
| 42         | 0.25                                                | 0.25                                                 | 0.5                                                   | 0                           |
| 43         | 0.25                                                | 0.25                                                 | 0.5                                                   | 0                           |
| 44         | 0.125                                               | 0.125                                                | 0.25                                                  | 0                           |
| 45         | 0.25                                                | 0.125                                                | 0.5                                                   | 0                           |
| 46         | 0.125                                               | 0.0625                                               | 0.25                                                  | 0                           |
| 47         | 0.25                                                | 0.25                                                 | 0.5                                                   | 1                           |
| 48         | 0.125                                               | 0.125                                                | 0.25                                                  | 0                           |
| 49         | 0.0625                                              | 0.125                                                | 0.25                                                  | 0                           |
| 50         | 0.25                                                | 0.125                                                | 0.5                                                   | 0                           |
| 51         | 0.25                                                | 0.0625                                               | 0.25                                                  | 0                           |
| 52         | 0.25                                                | 0.125                                                | 0.5                                                   | 0                           |
| 53         | 0.125                                               | 0.125                                                | ≤0.25                                                 | 0                           |
| 54         | 0.125                                               | 0.125                                                | 0.125                                                 | 0                           |
| 55         | 0.125                                               | ≤0.125                                               | 0.25                                                  | 0                           |
| 56         | 0.03125                                             | 0.03125                                              | 0.0625                                                | 0                           |
| 57         | 0.0625                                              | 0.0625                                               | 0.125                                                 | 0                           |
| 58         | 0.0625                                              | 0.0625                                               | 0.0625                                                | 0                           |
| 59         | 0.25                                                | 0.25                                                 | 0.25                                                  | 0                           |
| 60         | 0.25                                                | 0.25                                                 | 0.5                                                   | 0                           |
| 61         | 0.25                                                | 0.125                                                | 0.25                                                  | 0                           |
| 62         | 0.25                                                | 0.0625                                               | 0.125                                                 | 0                           |
| 63         | 0.125                                               | 0.0625                                               | 0.125                                                 | 0                           |
| 64         | 0.0625                                              | 0.0625                                               | 0.125                                                 | 0                           |
| 65         | 0.125                                               | 0.0625                                               | 0.125                                                 | 0                           |
| 66         | 0.25                                                | 0.125                                                | 0.25                                                  | 0                           |
| 67         | 0.5                                                 | 0.125                                                | 0.125                                                 | 0                           |
| 68         | 0.5                                                 | 0.25                                                 | 0.5                                                   | 0                           |
| 69         | 0.0625                                              | 0.0625                                               | 0.25                                                  | 0                           |
| 70         | 0.25                                                | 0.125                                                | 0.5                                                   | 0                           |
| 71         | 0.25                                                | 0.25                                                 | 2                                                     | 0                           |
| 72         | 0.125                                               | 0.125                                                | 0.25                                                  | 0                           |
| 73         | 0.5                                                 | 0.25                                                 | 0.5                                                   | <1                          |
| 74         | 0.125                                               | 0.0625                                               | 0.25                                                  | <1                          |
| 75         | 0.0625                                              | 0.0625                                               | 0.125                                                 | <1                          |
| 76         | 0.0625                                              | 0.0625                                               | 0.25                                                  | <1                          |

Table 2, continued

| Example n° | <i>Escherichia coli</i><br>ATCC 25922<br>MIC [mg/L] | <i>Escherichia coli</i><br>MCR-1 Af 45<br>MIC [mg/L] | <i>Klebsiella pneumoniae</i><br>SSI3010<br>MIC [mg/L] | Hemolysis<br>at 0.2 g/L [%] |
|------------|-----------------------------------------------------|------------------------------------------------------|-------------------------------------------------------|-----------------------------|
| 77         | 0.0625                                              | 0.0625                                               | 0.125                                                 | <1                          |
| 78         | 0.0625                                              | 0.0625                                               | 0.125                                                 | <1                          |
| 79         | 0.125                                               | 0.125                                                | 0.5                                                   | <1                          |
| 80         | 0.125                                               | 0.0625                                               | 0.25                                                  | <1                          |
| 81         | 0.125                                               | 0.0625                                               | 0.5                                                   | <1                          |
| 82         | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 83         | 0.25                                                | 0.25                                                 | 0.5                                                   | <1                          |
| 84         | 0.25                                                | 0.25                                                 | 0.5                                                   | <1                          |
| 85         | 0.125                                               | 0.0625                                               | 0.25                                                  | <1                          |
| 86         | 0.125                                               | 0.0625                                               | 0.25                                                  | <1                          |
| 87         | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 88         | 0.125                                               | 0.0625                                               | 0.25                                                  | <1                          |
| 89         | 0.0625                                              | 0.0625                                               | 0.25                                                  | <1                          |
| 90         | 0.125                                               | 0.0625                                               | 0.25                                                  | <1                          |
| 91         | 0.25                                                | 0.03125                                              | 0.25                                                  | <1                          |
| 92         | 0.25                                                | 0.125                                                | 0.5                                                   | <1                          |
| 93         | 0.25                                                | 0.0625                                               | 0.25                                                  | <1                          |
| 94         | 0.0625                                              | 0.0625                                               | 0.25                                                  | <1                          |
| 95         | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 96         | 0.25                                                | 0.25                                                 | 0.5                                                   | <1                          |
| 97         | 0.25                                                | 0.25                                                 | 0.5                                                   | <1                          |
| 98         | 0.25                                                | 0.25                                                 | 0.5                                                   | <1                          |
| 99         | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 100        | 0.25                                                | 0.0625                                               | 0.25                                                  | <1                          |
| 101        | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 102        | 0.25                                                | 0.125                                                | 0.25                                                  | <1                          |
| 103        | 0.5                                                 | 0.125                                                | 0.5                                                   | <1                          |
| 104        | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 105        | 0.25                                                | 0.125                                                | 0.5                                                   | <1                          |
| 106        | 0.25                                                | 0.25                                                 | 0.25                                                  | <1                          |
| 107        | 0.25                                                | 0.25                                                 | 0.5                                                   | <1                          |
| 108        | 0.25                                                | 0.125                                                | 0.25                                                  | <1                          |
| 109        | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 110        | 0.5                                                 | 0.125                                                | 0.5                                                   | <1                          |
| 111        | 0.25                                                | 0.125                                                | 0.5                                                   | <1                          |
| 112        | 0.25                                                | 0.0625                                               | 0.25                                                  | <1                          |

**Table 2, continued**

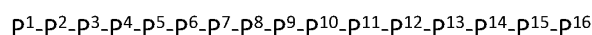
| Example n° | <i>Escherichia coli</i><br>ATCC 25922<br>MIC [mg/L] | <i>Escherichia coli</i><br>MCR-1 Af 45<br>MIC [mg/L] | <i>Klebsiella pneumoniae</i><br>SSI3010<br>MIC [mg/L] | Hemolysis<br>at 0.2 g/L [%] |
|------------|-----------------------------------------------------|------------------------------------------------------|-------------------------------------------------------|-----------------------------|
| 113        | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 114        | 0.125                                               | 0.125                                                | 0.5                                                   | <1                          |
| 115        | 0.5                                                 | 0.125                                                | 0.5                                                   | <1                          |
| 116        | 0.25                                                | 0.25                                                 | 0.5                                                   | <1                          |
| 117        | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 118        | 0.25                                                | 0.25                                                 | 0.25                                                  | <1                          |
| 119        | 0.25                                                | 0.25                                                 | 0.25                                                  | <1                          |
| 120        | 0.25                                                | 0.125                                                | 0.5                                                   | <1                          |
| 121        | 0.25                                                | 0.25                                                 | 0.5                                                   | <1                          |
| 122        | 0.25                                                | 0.125                                                | 0.5                                                   | <1                          |
| 123        | 0.0625                                              | 0.125                                                | 0.125                                                 | <1                          |
| 124        | 0.25                                                | 0.25                                                 | 0.5                                                   | <1                          |
| 125        | 0.125                                               | 0.03125                                              | 0.5                                                   | <1                          |
| 126        | 0.0625                                              | 0.0625                                               | 0.125                                                 | <1                          |
| 127        | 0.25                                                | 0.125                                                | 0.5                                                   | <1                          |
| 128        | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 129        | 0.125                                               | 0.0625                                               | 0.5                                                   | <1                          |
| 130        | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 131        | 0.25                                                | 0.125                                                | 0.5                                                   | <1                          |
| 132        | 0.125                                               | 0.125                                                | 0.25                                                  | <1                          |
| 133        | 0.25                                                | 0.25                                                 | 0.5                                                   | <1                          |
| 134        | 0,125                                               | 0,25                                                 | 0,5                                                   | 1                           |
| 135        | 0,25                                                | 0,25                                                 | 0,5                                                   | <1                          |
| 136        | 0,125                                               | 0,25                                                 | 0,5                                                   | <1                          |
| 137        | 0,125                                               | 0,125                                                | 0,25                                                  | <1                          |
| 138        | 0,125                                               | 0,125                                                | 0,5                                                   | <1                          |

**Note to Table 2:**

- Thanatin was synthesized according to a standard solid phase peptide synthesis (SPPS) procedure.

## CLAIMS

1. A peptidomimetic compound of the general formula (I),



5 (I)

wherein

P<sup>1</sup> is 2OHVal, Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolIle, betaGly, Cha, Cpa, Cpg, Cyg, Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;

10 wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua) or by a tetramethyl guanidino (TMG) group;

P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys; 15 Hyp, NalloThr;

P<sup>3</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolIle, betaGly, Cha, Cpa, Cpg, Cyg, Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;

P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolIle, betaGly, Cha, Cpa, Cpg, Cyg, 20 Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;

Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, 25 Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys, Lys(Me); alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl, Val(3OH);

P<sup>5</sup> is Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), 30 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;

- P<sup>6</sup> is Pra, Abu(4N<sub>3</sub>);  
 Dab, Dap, <sup>D</sup>Dab, <sup>D</sup>Dap;  
 Cys, Hcy, NMeCys, Pen, <sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys, <sup>D</sup>Pen;  
 Asp, Glu, Hgl, <sup>D</sup>Asp, <sup>D</sup>Glu, <sup>D</sup>Hgl;
- 5 P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
 Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
 NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 10 2OHDab, Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab,  
 Nlys, Norn, Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg,  
 NMeLys;  
 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>8</sup> is Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 15 Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;
- P<sup>9</sup> is Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;  
 Cit;
- P<sup>10</sup> is alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- 20 P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dab(iPr), <sup>D</sup>Dap, <sup>D</sup>Dap(iPr), <sup>D</sup>Lys, <sup>D</sup>Lys(iPr), <sup>D</sup>Orn, <sup>D</sup>Orn(iPr), <sup>D</sup>Arg;
- P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
 Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
 NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 25 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;  
 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>13</sup> is Pra, Abu(4N<sub>3</sub>);  
 30 Dab, Dap, <sup>D</sup>Dab, <sup>D</sup>Dap;

Cys, Hcy, NMeCys, Pen, <sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys, <sup>D</sup>Pen;  
 Asp, Glu, Hgl, <sup>D</sup>Asp, <sup>D</sup>Glu, <sup>D</sup>Hgl;

P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;

5 Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;  
 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;

P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
 Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
 10 NMeVal, Nva;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;  
 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;

P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cha, Cpa, Cpg, Cyg,  
 15 Dea, Gly, Hle, Ile, Leu, Met, Nle, OctGly, Sar, tBuGly, tBuAla, Val, Pro, NMeAla,  
 NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;

or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,

20 wherein

Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if  
 present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
<sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys or <sup>D</sup>Pen at P<sup>6</sup>, if present, and <sup>D</sup>Cys, <sup>D</sup>Hcy, <sup>D</sup>NMeCys or <sup>D</sup>Pen at P<sup>13</sup>,  
 if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

25 Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a  
 lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
<sup>D</sup>Dab or <sup>D</sup>Dap at P<sup>6</sup>, if present, and <sup>D</sup>Asp, <sup>D</sup>Glu or <sup>D</sup>Hgl at P<sup>13</sup>, if present, optionally form  
 a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a  
 30 lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

<sup>D</sup>Asp, <sup>D</sup>Glu or <sup>D</sup>Hgl at P<sup>6</sup>, if present, and <sup>D</sup>Dab or <sup>D</sup>Dap at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

- 5 Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least three amino acid residues among the four amino acid residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,

- 10 Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys.

2. The compound of claim 1, wherein

P<sup>1</sup> is 2OHVal, Val, NMeVal, Abu, tBuGly;

wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua)

- 15 or by a tetramethyl guanidino (TMG) group;

P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys; Hyp, NalloThr;

- 20 P<sup>3</sup> is Hle, Ile, Leu, Nle;

P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle, Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva; Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe; 25 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys, Lys(Me); alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl, Val(3OH);

P<sup>5</sup> is Phe, His, Trp, Tyr;

P<sup>6</sup> is Pra, Abu(4N<sub>3</sub>);

- 30 Dab, Dap;

- Cys, Hcy, NMeCys, Pen;  
 Asp, Glu, Hgl;
- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allole, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;
- 5 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Arg, NMeLys; Group E  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- 10 P<sup>8</sup> is Agb, Har, Arg;  
 P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, Arg, Dab(iPr);  
 Cit;  
 P<sup>10</sup> is alloThr, Hse, Ser, Thr;  
 P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, <sup>D</sup>Arg, <sup>D</sup>Dab(iPr);
- 15 P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allole, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 20 Orn, Orn(iPr), Arg, NMeLys;  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>13</sup> is Pra, Abu(4N<sub>3</sub>);  
 Dab, Dap;  
 Cys, Hcy, NMeCys, Pen;
- 25 Asp, Glu, Hgl;
- P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Arg, NMeLys;
- 30 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;

- P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle, Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;
- 5       alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle, Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva; Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;
- 10   or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof, wherein
- Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a
- 15   lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- 20   Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>;
- with the proviso that at least three amino acid residues among the four amino acid residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,
- 25   Orn(iPr), Arg, NMeLys.

3.       The compound according to any one of claims 1 or 2, wherein

- P<sup>1</sup> is 2OHVal, Val, NMeVal, Abu, tBuGly;
- wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua)
- 30       or by a tetramethyl guanidino (TMG) group;

- P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Pro((4R)guanidine), Pro((4R)NH<sub>2</sub>), Pro((4S)NH<sub>2</sub>), Arg, NMeLys;  
 Hyp, NalloThr;
- 5 P<sup>3</sup> is Ile;
- P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;
- 10 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Arg, NMeLys, Lys(Me);  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl, Val(3OH);
- P<sup>5</sup> is Phe, His, Trp, Tyr;
- P<sup>6</sup> is Dab, Dap;
- 15 Cys, Pen;  
 Asp, Glu;
- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),
- 20 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Arg, NMeLys;  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>8</sup> is Arg;
- 25 P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, Arg, Dab(iPr);  
 Cit;
- P<sup>10</sup> is alloThr, Hse, Ser, Thr;
- P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, <sup>D</sup>Arg, <sup>D</sup>Dab(iPr);
- P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,
- 30 Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;

- Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
 Orn, Orn(iPr), Arg, NMeLys;
- 5       alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;  
       P<sup>13</sup> is Dab, Dap;  
             Cys, Pen;  
             Asp, Glu;
- P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
 10       Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
       Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
       Orn, Orn(iPr), Arg, NMeLys;  
       alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 15       Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
       Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn,  
       Orn, Orn(iPr), Arg, NMeLys;  
       alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;
- P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cha, Cpa, Cpg, Cyg, Dea, Hle,  
 20       Ile, Leu, Met, Nle, OctGly, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
       Phe, His, Phe(3OH), Phe(4F), Phe(4OCF<sub>3</sub>), Trp(6Cl), Tyr(3Cl), Tyr(3F), Tyr(Phenyl),  
       Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
       or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,  
       wherein
- 25       Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a disulfide  
       bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
       Dab or Dap at P<sup>6</sup>, if present, and Asp or Glu at P<sup>13</sup>, if present, optionally form a lactam  
       bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
       Asp or Glu at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam  
 30       bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least three amino acid residues among the four amino acid residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Har, Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys.

5

4. The compound of claim 1, wherein

P<sup>1</sup> is 2OHVal, Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile, Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;

10

wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua) or by a tetramethyl guanidino (TMG) group;

P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys; Hyp, NalloThr;

15

P<sup>3</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile, Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva;

P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile, Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva; Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys, Lys(Me); alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl, Val(3OH);

20

25 P<sup>5</sup> is Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;

P<sup>6</sup> is Pra, Abu(4N<sub>3</sub>); Dab, Dap; Cys, Hcy, NMeCys, Pen;

30

Asp, Glu, Hgl;

- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile, Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva; Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;
- 5 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys; alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>8</sup> is Agb, Agp, Dab, Dap, Lys, Narg, Ndab, Nlys, Norn, Orn, Pro((4R)NH<sub>2</sub>), Arg, NMeLys;
- P<sup>9</sup> is Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, 10 Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys; Cit;
- P<sup>10</sup> is alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dab(iPr), <sup>D</sup>Dap, <sup>D</sup>Dap(iPr), <sup>D</sup>Lys, <sup>D</sup>Lys(iPr), <sup>D</sup>Orn, <sup>D</sup>Orn(iPr), <sup>D</sup>Arg;
- P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile, 15 Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva; Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;
- 20 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>13</sup> is Pra, Abu(4N<sub>3</sub>); Dab, Dap; Cys, Hcy, NMeCys, Pen; Asp, Glu, Hgl;
- 25 P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe; Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys; alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;

- P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile, Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;
- 5 alloThr, Cit, Hgn, Hse, Hyp, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, betaGly, Cyg, Dea, Gly, Ile, Leu, Nle, Sar, tBuGly, tBuAla, Val, Pro, NMeAla, NMeVal, Nva; Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;
- 10 or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof, wherein
- Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a
- 15 lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein
- 20 Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>;
- with the proviso that at least three amino acid residues among the four amino acid residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from
- Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,
- 25 Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys.

5. The compound according to any one of claims 1 or 4, wherein
- P<sup>1</sup> is 2OHVal, Val, NMeVal, Abu, tBuGly;
- wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua)
- 30 or by a tetramethyl guanidino (TMG) group;

- P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
 Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;  
 Hyp, NalloThr;
- 5 P<sup>3</sup> is Hle, Ile, Leu, Nle;
- P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly,  
 tBuAla, Val, NMeAla, NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;
- 10 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
 Orn(iPr), Arg, NMeLys, Lys(Me);  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl, Val(3OH);
- P<sup>5</sup> is Phe, His, Trp, Tyr;
- P<sup>6</sup> is Pra, Abu(4N<sub>3</sub>);
- 15 Dab, Dap;  
 Cys, Hcy, NMeCys, Pen;  
 Asp, Glu, Hgl;
- P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly,  
 tBuAla, Val, NMeAla, NMeVal, Nva;
- 20 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
 Orn(iPr), Arg, NMeLys;  
 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- 25 P<sup>8</sup> is Agb, Har, Arg;
- P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, Arg, Dab(iPr);  
 Cit;
- P<sup>10</sup> is alloThr, Hse, Ser, Thr;
- P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, <sup>D</sup>Arg, <sup>D</sup>Dab(iPr);

- P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
5 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;  
P<sup>13</sup> is Pra, Abu(4N<sub>3</sub>);  
Dab, Dap;  
10 Cys, Hcy, NMeCys, Pen;  
Asp, Glu, Hgl;  
P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
15 Orn(iPr), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;  
P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn,  
20 Orn(iPr), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;  
P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)),  
25 Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,  
wherein  
Cys, Hcy, NMeCys or Pen at P<sup>6</sup>, if present, and Cys, Hcy, NMeCys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
30 Dab or Dap at P<sup>6</sup>, if present, and Asp, Glu or Hgl at P<sup>13</sup>, if present, optionally form a

lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Asp, Glu or Hgl at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole

5 bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Abu(4N<sub>3</sub>) at P<sup>6</sup>, if present, and Pra at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least three amino acid residues among the four amino acid residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from

10 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys.

6. The compound according to any one of claims 1, 4 or 5, wherein

P<sup>1</sup> is 2OHVal, Val, NMeVal, Abu, tBuGly;

15 wherein the amino group of P<sup>1</sup> is optionally replaced by a guanidino group (Gua) or by a tetramethyl guanidino (TMG) group;

P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic; Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Pro((4R)NH<sub>2</sub>), Arg, NMeLys;

20 Hyp, NalloThr;

P<sup>3</sup> is Ile;

P<sup>4</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;

25 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;

Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys; Lys(Me);

alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl, Val(3OH);

P<sup>5</sup> is Phe, His, Trp, Tyr;

30 P<sup>6</sup> is Dab, Dap;

- Cys, Pen;  
Asp, Glu;
- 5 P<sup>7</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, alloIle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- 10 P<sup>8</sup> is Arg;  
P<sup>9</sup> is Dab, Dap, Har, Lys, Orn, Arg, Dab(iPr);  
Cit;  
P<sup>10</sup> is alloThr, Hse, Ser, Thr;  
P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Lys, <sup>D</sup>Orn, <sup>D</sup>Arg, <sup>D</sup>Dab(iPr);
- 15 P<sup>12</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, alloIle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Tyr(Phenyl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;  
20 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;
- P<sup>13</sup> is Dab, Dap;  
Cys, Pen;  
Asp, Glu;
- 25 P<sup>14</sup> is Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
Agb, Agp, Dab, Dab(iPr); Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;  
alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, or Hgl;

- P<sup>15</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys;  
 5 alloThr, Cit, Hgn, Hse, Leu((3R)OH), Asn, Gln, Ser, Thr, Asp, Glu, Hgl;  
 P<sup>16</sup> is Ala, Ala(cPr), Ala(tetrahydropyran4yl), Abu, allolle, Cyg, Dea, Ile, Leu, Nle, tBuGly, tBuAla, Val, NMeAla, NMeVal, Nva;  
 Phe, His, Phe(3OH), Phe(4F), Trp(6Cl), Trp, Tyr, 4Thz, Phe(4(4hydroxyphenoxy)), Phe(4NH<sub>2</sub>), Tyr(Me), Ntyr, Nphe;  
 10 or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,  
 wherein  
 Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Dab or Dap at P<sup>6</sup>, if present, and Asp or Glu at P<sup>13</sup>, if present, optionally form a lactam  
 15 bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein  
 Asp or Glu at P<sup>6</sup>, if present, and Dab or Dap at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>;  
 with the proviso that at least three amino acid residues among the four amino acid residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from  
 20 Agb, Agp, Dab, Dab(iPr), Dap, Dap(iPr), Lys, Lys(iPr), Narg, Ndab, Nlys, Norn, Orn, Orn(iPr), Arg, NMeLys.

7. The compound according to any one of claims 1 to 6, wherein  
 P<sup>1</sup> is Val, 2OHVal, NMeVal, Gua-Val, TMG-Val, Abu, or tBuGly;  
 25 P<sup>2</sup> is Pro, Pro(4R)F, Pro(4R)OMe, Pro(4R)OPhe, Pro(3,4dehydro), Pr(4,4F2), Pic, Pro((4R)NH<sub>2</sub>), Ndab, NalloThr, or Hyp;  
 P<sup>3</sup> is Ile;  
 P<sup>4</sup> is Ile, Thr, Phe, Dab, Orn, Arg, Tyr, Leu, Asn, Lys, Lys(Me), Dap, Val(3OH), or alloThr;  
 P<sup>5</sup> is Trp or Tyr;  
 30 P<sup>6</sup> is Cys, Pen, Asp, or Pra;

- P<sup>7</sup> is Asn, Ala, Leu, Ile, Ser, Thr, Lys, Dap, Glu, or His;  
 P<sup>8</sup> is Arg;  
 P<sup>9</sup> is Arg, Dab, Dab(iPr), Lys, or Cit;  
 P<sup>10</sup> is Ser or Thr;  
 5 P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dap, <sup>D</sup>Orn, <sup>D</sup>Lys, <sup>D</sup>Arg, or <sup>D</sup>Dab(iPr);  
 P<sup>12</sup> is Lys, Ile, Ser, Tyr, Trp, Asn, Dab, Orn, or Cit;  
 P<sup>13</sup> is Cys, Pen, Dab, or Abu(4N<sub>3</sub>);  
 P<sup>14</sup> is Dab, Dab(iPr), Lys, Gln, Ser, or Tyr;  
 P<sup>15</sup> is Arg, Thr, Leu, Ser, Dab, Lys, Orn, or Orn(iPr); and  
 10 P<sup>16</sup> is Nle, Cha, or Tyr;  
 or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,  
 wherein Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a  
 disulfide bridge between P<sup>6</sup> and P<sup>13</sup>, or wherein  
 Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge  
 15 between P<sup>6</sup> and P<sup>13</sup>, or wherein  
 Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole  
 bridge between P<sup>6</sup> and P<sup>13</sup>;  
 with the proviso that at least three amino acid residues among the four amino acid  
 residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from  
 20 Dab, Lys, Arg, or Dab(iPr) at P<sup>9</sup>, Lys, Dab, or Orn at P<sup>12</sup>, Dab, Dab(iPr), or Lys at P<sup>14</sup> and  
 Arg, Dab, Lys, Orn or Orn(iPr) at P<sup>15</sup>.

8. The compound according to any one of claims 1 to 7, wherein  
 P<sup>1</sup> is Val, NMeVal, Gua-Val, TMG-Val, or Abu;  
 25 P<sup>2</sup> is Pro, Pro(4R)OMe, Pro(3,4dehydro), Pic, Pro((4R)NH<sub>2</sub>), Ndab, *Nallo*Thr, or Hyp;  
 P<sup>3</sup> is Ile;  
 P<sup>4</sup> is Ile, Thr, Phe, Dab, Arg, Val(3OH), or Tyr;  
 P<sup>5</sup> is Tyr;  
 P<sup>6</sup> is Cys, Pen, or Asp;  
 30 P<sup>7</sup> is Asn, Leu, Ile, Ser, Dap, or His;

- P<sup>8</sup> is Arg;
- P<sup>9</sup> is Arg, Lys, Dab, or Dab(iPr);
- P<sup>10</sup> is Ser or Thr;
- P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dab(iPr), or <sup>D</sup>Arg;
- 5 P<sup>12</sup> is Lys, Ile, Ser, Dab, Orn, or *Cit*;
- P<sup>13</sup> is Cys, Pen, or Dab;
- P<sup>14</sup> is Dab, Dab(iPr), Lys, Gln, Ser, or Tyr;
- P<sup>15</sup> is Arg, Dab, Orn, Orn(iPr), Ser, or Thr;
- P<sup>16</sup> is Nle, Cha, or Tyr;
- 10 or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,  
wherein Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a  
disulfide bridge between P<sup>6</sup> and P<sup>13</sup>, or wherein  
Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge  
between P<sup>6</sup> and P<sup>13</sup>;
- 15 with the proviso that at least three amino acid residues among the four amino acid  
residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from  
Dab, Lys, Arg, or Dab(iPr) at P<sup>9</sup>, Lys, Orn, or Dab at P<sup>12</sup>, Lys, Dab or Dab(iPr) at P<sup>14</sup> and  
Arg, Dab, Orn, or Orn(iPr) at P<sup>15</sup>.
- 20 9. The compound according to any one of claims 1 to 7, wherein
- P<sup>1</sup> is 2OHVal, Gua-Val, or TMG-Val;
- P<sup>2</sup> is Pro, Pro((4R)NH<sub>2</sub>), or Hyp;
- P<sup>3</sup> is Ile;
- P<sup>4</sup> is Ile, Thr, Dab, or Orn;
- 25 P<sup>5</sup> is Tyr;
- P<sup>6</sup> is Cys, Pen, Asp or Pra;
- P<sup>7</sup> is Ile, Asn, or Thr;
- P<sup>8</sup> is Arg;
- P<sup>9</sup> is Lys, Arg, Dab, or Dab(iPr);
- 30 P<sup>10</sup> is Ser, or Thr;

P<sup>11</sup> is <sup>D</sup>Dab, <sup>D</sup>Dab(iPr), or <sup>D</sup>Dap;

P<sup>12</sup> is Lys, Ile, Asn, Ser, Tyr, Orn, or Cit;

P<sup>13</sup> is Cys, Dab, or Abu(4N<sub>3</sub>);

P<sup>14</sup> is Dab, Dab(iPr), Lys, or Ser;

5 P<sup>15</sup> is Arg, Dab, Orn; Orn(iPr), Ser, or Thr;

P<sup>16</sup> is Nle, or Tyr;

or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,

wherein Cys or Pen at P<sup>6</sup>, if present, and Cys at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>, or wherein

10 Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>; or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole bridge between P<sup>6</sup> and P<sup>13</sup>;

with the proviso that at least three amino acid residues among the four amino acid

15 residues at positions P<sup>9</sup>, P<sup>12</sup>, P<sup>14</sup> and P<sup>15</sup> are basic amino acid residues selected from Dab, Lys, Arg, or Dab(iPr) at P<sup>9</sup>, Lys, or Orn at P<sup>12</sup>, Lys, Dab or Dab(iPr) at P<sup>14</sup> and Arg, Dab, Orn, or Orn(iPr) at P<sup>15</sup>.

10. A compound according to any one of claims 1 to 7, wherein the compound is  
20 selected from the group consisting of

Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Arg-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;

Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Arg-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;

Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;

Val-Ndab-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;

25 Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Nle;

Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Cha;

Val-Pro-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;

Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Pen-Dab-Arg-Tyr;

Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;

30 Val-Hyp-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;

- Val-Pro-Ile-Thr-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro-Ile-Phe-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
2OHVal-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
5 Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dap-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Orn-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Lys-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Arg-Lys-Cys-Dab-Arg-Tyr;  
10 Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Arg-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Tyr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Leu-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Asn-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
15 Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Lys-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Trp-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ala-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Leu-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
20 Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ser-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Thr-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Lys-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Lys-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
25 Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Arg-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ser-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Tyr-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Trp-Cys-Dab-Arg-Tyr;  
30 Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Asn-Cys-Dab-Arg-Tyr;

- Va-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Dab-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Leu-Tyr  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Ser-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
5 Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Lys-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Arg-Tyr;  
NMeVal-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Dap-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
10 Val-Hyp-Ile-Dap-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Arg-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
Gua-Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Pro-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
15 Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Tyr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Gln-Arg-Tyr;  
20 Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Glu-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Thr-Tyr-Pen-His-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Dab-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
25 Gua-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
Gua-Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
Gua-Val-Hyp-Ile-alloThr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Tyr-Arg-Tyr;  
TMG-Val-Pro-Ile-Ile-Tyr-Cys-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
30 TMG-Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;

- Val-Hyp-Ile-Ile-Tyr-Pra-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Abu(4N<sub>3</sub>)-Dab-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Asp-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Dab-Dab-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Cit-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
5 Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Orn-Cys-Dab-Arg-Tyr;  
Abu-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
10 Val-Pro-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Dab-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Lys-Thr-<sup>D</sup>Dab-Lys-Cys-Lys-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Dab-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Ile-Cys-Dab-Dab-Tyr;  
15 Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
20 Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Arg-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Orn-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
25 tBuGly-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Ile-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Orn-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Ser-Tyr;  
30 Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Ser-Tyr;

- Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ser-Cys-Dab-Arg-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Ser-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Ser-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Arg-Tyr;  
5 Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Ser-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Ser-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Arg-Tyr;  
Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Ser-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
10 Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Dab-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Thr-Tyr;  
tBuGly-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
15 Val-Pro((4R)NH<sub>2</sub>)-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Thr-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Cit-Cys-Dab-Thr-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Dab-Ser-<sup>D</sup>Dab-Ile-Cys-Dab-Arg-Tyr;  
Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Ser-Thr-Tyr;  
20 Val-Pro((4R)NH<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Orn-Thr-<sup>D</sup>Dab-Ile-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Orn-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Thr-Tyr;  
Val-Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Orn-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Ile-Tyr-Pen-Asn-Arg-Cit-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
25 Val-Hyp-Ile-Lys(Me)-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Hyp-Ile-Val(3OH)-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro(4,4F<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro(3,4dehydro)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
Val-Pro(4,4F<sub>2</sub>)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;  
30 Val-Pro((4R)OPh)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr

Val-Pro((4R)F)-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;

Val-Pic-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;

Val-NalloThr-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Arg-Tyr;

Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab(iPr)-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn(iPr)-Tyr;

5 Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab(iPr)-Thr-<sup>D</sup>Dab-Lys-Cys-Dab(iPr)-Arg-Tyr;

Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn(iPr)-Tyr;

Hyp-Ile-Thr-Tyr-Pen-Ile-Arg-Dab-Thr-<sup>D</sup>Dab-Lys-Cys-Dab-Orn(iPr)-Tyr;

Hyp-Ile-Thr-Tyr-Pen-Asn-Arg-Dab-Thr-<sup>D</sup>Dab(iPr)-Lys-Cys-Dab-Arg-Tyr; (Ex138)

or a tautomer, a rotamer, a salt, a hydrate or a solvate thereof,

10 wherein Cys or Pen at P<sup>6</sup>, if present, and Cys or Pen at P<sup>13</sup>, if present, optionally form a disulfide bridge between P<sup>6</sup> and P<sup>13</sup>, or wherein

Asp at P<sup>6</sup>, if present, and Dab at P<sup>13</sup>, if present, optionally form a lactam bridge between P<sup>6</sup> and P<sup>13</sup>, or wherein

Pra at P<sup>6</sup>, if present, and Abu(4N<sub>3</sub>) at P<sup>13</sup>, if present, optionally form a 1,2,3-triazole  
15 bridge between P<sup>6</sup> and P<sup>13</sup>.

11. An enantiomer of a compound of formula (I) as defined in claim 1.

12. A pharmaceutical composition containing a compound or a mixture of  
20 compounds according to any one of claims 1 to 11 and at least one pharmaceutically inert carrier.

13. A pharmaceutical composition according to claim 12 in a form suitable for oral, topical, transdermal, injection, buccal, transmucosal, rectal, pulmonary or inhalation  
25 administration, especially in the form of a tablet, a dragee, a capsule, a solution, a liquid, a gel, a plaster, a cream, an ointment, a syrup, a slurry, a suspension, a spray, a nebulizer, an aerosol, or a suppository.

14. A compound of formula (I) according to any one of claims 1 to 11, or a  
30 pharmaceutically acceptable salt thereof, for use as a medicament.

15. A compound according to any one of the claims 1 to 11 for use as a pharmaceutically active substance having antibiotic activity.
16. Use of a compound according to any one of claims 1 to 11 for the manufacture  
5 of a medicament to treat or prevent infections or diseases related to such infections; particularly infections related to respiratory diseases or skin or soft tissue diseases or gastrointestinal diseases or eye diseases or ear diseases or CNS diseases or bone diseases or cardiovascular diseases or genitourinary diseases, or nosocomial infections, or catheter-related and non-catheter-related infections, or urinary tract infections, or  
10 bloodstream infections; or infection-induced sepsis.
17. Use of a compound according to any one of claims 1 to 11 as a disinfectant or preservative for foodstuffs, cosmetics, medicaments, and/or other nutrient-containing materials.
- 15
18. Use of a compound according to any one of claims 1 to 11 as a pharmaceutically active substance having antibiotic activity.
19. Use of a compound according to any one of claims 1 to 11 or a composition according to claim 12 or 13 for the treatment or prevention of infections or diseases  
20 related to such infections; particularly infections related to respiratory diseases or skin or soft tissue diseases or gastrointestinal diseases or eye diseases or ear diseases or CNS diseases or bone diseases or cardiovascular diseases or genitourinary diseases, or nosocomial infections, or catheter-related and non-catheter-related infections, or urinary tract infections, or bloodstream infections; or infection-induced sepsis.
- 25
20. Use of a compound according to any one of claims 1 to 11 or a composition according to claim 12 or 13 as a disinfectant or preservative for foodstuffs, cosmetics, medicaments and/or other nutrient-containing materials.

21. A method of treating an infection, especially infections such as nosocomial infections, catheter-related and non-catheter-related infections, urinary tract infections, bloodstream infections, or a disease or disorder associated with an infection, especially diseases or disorders such as ventilator-associated pneumonia (VAP), ventilator-associated bacterial pneumonia (VABP), hospital-acquired pneumonia (HAP), hospital-acquired bacterial pneumonia (HABP), healthcare-associated pneumonia (HCAP), cystic fibrosis, emphysema, asthma, pneumonia, epidemic diarrhea, necrotizing enterocolitis, typhlitis, gastroenteritis, pancreatitis, keratitis, endophthalmitis, otitis, brain abscess, meningitis, encephalitis, osteochondritis, pericarditis, epididymitis, prostatitis, urethritis, sepsis; surgical wounds, traumatic wounds, burns, comprising the step:
- administering to a subject in need thereof a pharmaceutically acceptable amount of a compound or a mixture of compounds according to any one of claims 1 to 11 or a therapeutically active amount of a pharmaceutical composition according to claim 12 or 13.
22. A process for the preparation of a compound according to any one of claims 1 to 11 which comprises the following steps:
- (a) coupling an appropriately functionalized solid support with an appropriately N-protected derivative of that amino acid which in the desired end-product is in position P<sup>16</sup>; any functional group which may be present in said N-protected amino acid derivative being likewise appropriately protected;
  - (b) removing the N-protecting group from the product thus obtained;
  - (c) coupling the product thus obtained with an appropriately N-protected derivative of that amino acid which in the desired end-product is in position P<sup>15</sup>; any functional group which may be present in said N-protected amino acid derivative being likewise appropriately protected;
  - (d) effecting steps substantially corresponding to steps (b) and (c) using appropriately N-protected derivatives of amino acids which in the desired end-product are in positions P<sup>14</sup> to P<sup>6</sup>, any functional group(s) which may be present

in said N-protected amino acid derivatives being likewise appropriately protected;

- (e) optionally selectively deprotecting one or several protected functional group(s) present in the molecule and chemically transforming the reactive group(s) thus liberated;
- 5 (f) effecting steps substantially corresponding to steps (b) and (c) using appropriately N-protected derivatives of amino acids which in the desired end-product are in positions  $P^5$  to  $P^2$ , any functional group(s) which may be present in said N-protected amino acid derivatives being likewise appropriately protected; and, optionally, following each coupling, selectively deprotecting
- 10 one or several protected functional group(s) present in the molecule and chemically transforming the reactive group(s) thus liberated;
- (g) further effecting steps substantially corresponding to steps (b) and (c) using an appropriately N-protected derivative of an amino acid, or optionally, an
- 15 appropriately protected derivative of a hydroxy acid, which in the desired end-product is in position  $P^1$ , any functional group(s) which may be present in said N-protected amino acid derivative, or hydroxy acid derivative, being likewise appropriately protected; and, optionally, following the coupling, selectively deprotecting one or several protected functional group(s) present in the
- 20 molecule and chemically transforming the reactive group(s) thus liberated;
- (h) optionally selectively deprotecting one or several protected functional group(s) present in the molecule and chemically transforming the reactive group(s) thus liberated;
- (i) optionally, removing the N-protecting group at position  $P^1$ ;
- 25 (j) detaching the product thus obtained from the solid support;
- (k) optionally selectively deprotecting one or several protected functional group(s) present in the molecule and chemically transforming the reactive group(s) thus liberated;

- (l) removing any protecting groups present on functional groups of any members of the chain of residues and, optionally, any protecting group(s) which may in addition be present in the molecule;
- (m) optionally implementing additional chemical transformations of one or more reactive group(s) present in the molecule;
- (n) if required, removing any protecting groups present on functional groups of any members of the chain of residues and, optionally, any protecting group(s) which may in addition be present in the molecule; and
- (o) optionally converting the product thus obtained into a pharmaceutically acceptable salt; or  
optionally converting a pharmaceutically acceptable or unacceptable salt thus obtained into the corresponding free compound of formula (I); or  
optionally converting a pharmaceutically acceptable or unacceptable salt thus obtained into a different, pharmaceutically acceptable salt.