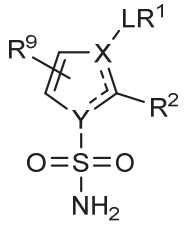
CLAIMS

1. A compound of formula (**I**) or a pharmaceutically acceptable salt thereof:



(I)

wherein

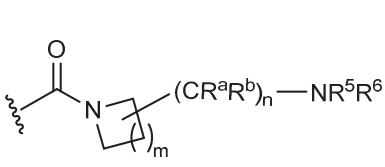
one of X and Y is N and the other is C;

L is a linker group selected from a bond or $-(CH_2)_a-Q-(CH_2)_b-$ in which, Q is selected from the group comprising: O, NH, SO_2, C=C, and C≡C or Q is absent;

R^1 is a 6 membered monocyclic aromatic, carbocyclic, heteroaromatic or heterocyclic ring substituted by one R^3 group, R^1 may be further substituted with 0 or 1 groups selected from halo, C_{1-6} alkyl, or C_{1-6} haloalkyl;

R^2 is -C(O)OH or -C(O)OM; wherein M is a group 1 cation;

R^3 is selected from the group comprising: $-CONR^4(CR^aR^b)_nNR^5R^6$, $-CONR^4(CR^aR^b)_nOSO_2OR^5$, $-CONR^4(CR^aR^b)_nCN$, $-CONR^4(CR^aR^b)_nC(=O)OH$, $-CONR^4(CR^aR^b)_nC(=O)NR^7R^8$, $-NR^4CO(CR^aR^b)_nNR^7R^8$, $-NR^4CO(CR^aR^b)_nOSO_2OR^5$, $-NR^4CO(CR^aR^b)_nCN$, $-NR^4CO(CR^aR^b)_nC(=O)OH$, $-NR^4CO(CR^aR^b)_nC(=O)NR^7R^8$, $-SO_2NR^4(CR^aR^b)_nNR^5R^6$, $-SO_2NR^4(CR^aR^b)_nOSO_2OR^5$, $-SO_2NR^4(CR^aR^b)_nCN$, $-SO_2NR^4(CR^aR^b)_nC(=O)OH$, $-SO_2NR^4(CR^aR^b)_nC(=O)NR^7R^8$,



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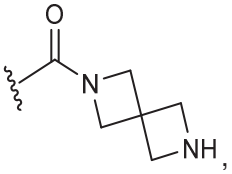

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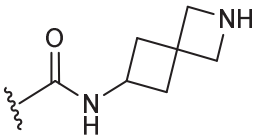

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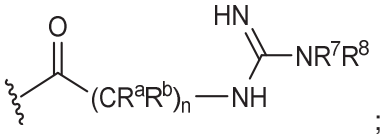


;

R^4 is selected at each occurrence from the group comprising: H, halo, -OH, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-8} cycloalkyl, C_{3-8} cycloalkenyl, $-(CH_2)_f$-aryl, $-(CH_2)_d$-heteroaryl, $-(CH_2)_g$-heterocyclyl; wherein R^4 may be optionally substituted where chemically possible with one, two or three groups independently selected at each occurrence from the group comprising: halo, $-NH_2$, $-N(C_{1-4}\text{ alkyl})_2$, -OH, $-SO_2N(C_{1-4}\text{ alkyl})_2$, $-NHC(=O)OC_{1-6}$ alkyl and $-C(=O)OC_{1-6}$ alkyl;

R^5 and R^6 are each independently H or C_{1-6} alkyl;

wherein at least one of R^4, R^5 or R^6 is C_{1-6} alkyl when each of R^4, R^5 and R^6 are present;

R^7 and R^8 are each independently selected at each occurrence from H or C_{1-4} alkyl;

R^9 is selected from the group comprising: H, C_{1-4} alkyl, and C_{1-4} haloalkyl;

R^a and R^b are each independently selected at each occurrence from: H, halo, $-NH_2$, and C_{1-4} alkyl;

a, b, d, f and g are independently selected as integers from 0 to 3;

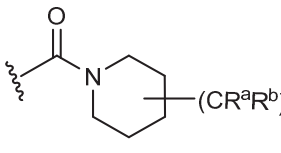
m is an integer selected from 1,2 or 3;

n is an integer selected from 1, 2, 3, 4 or 5; and

- - -represents a single or a double bond as required to satisfy valence requirements.

2. A compound according to claim 1, wherein Y is N and X is C.

3. A compound according to claim 1 or claim 2, wherein R^3 is selected from the group comprising: : $-CONR^4(CR^aR^b)_nNR^5R^6$, $-CONR^4(CR^aR^b)_nOSO_2OR^5$, $-CONR^4(CR^aR^b)_nCN$, $-CONR^4(CR^aR^b)_nC(=O)OH$, $-CONR^4(CR^aR^b)_nC(=O)NR^7R^8$,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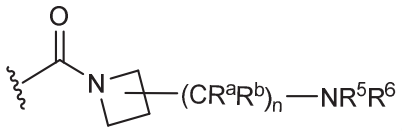
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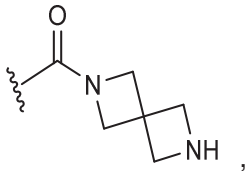
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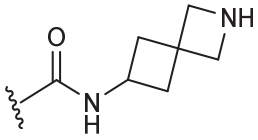
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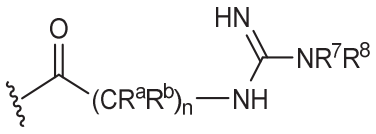
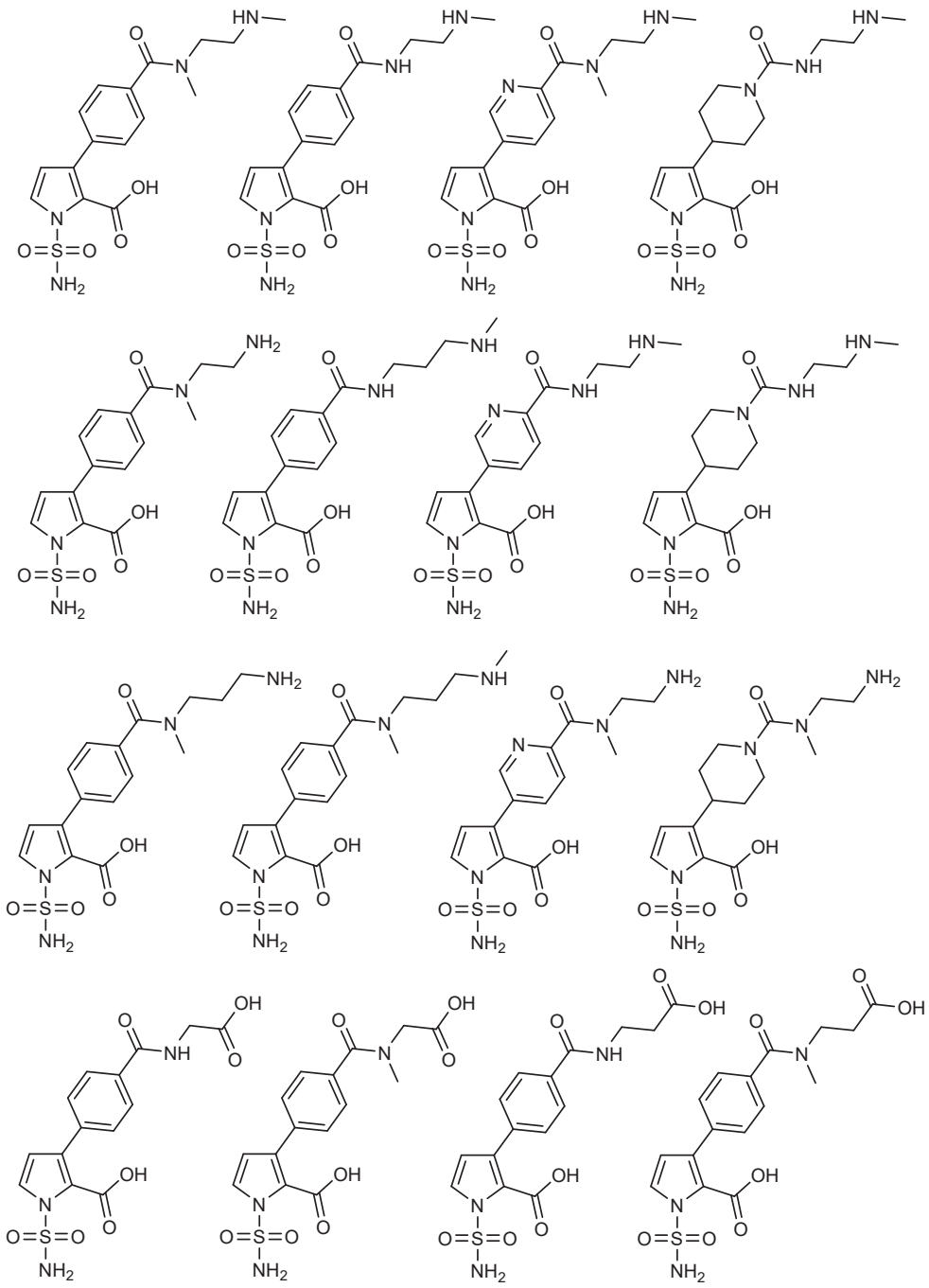


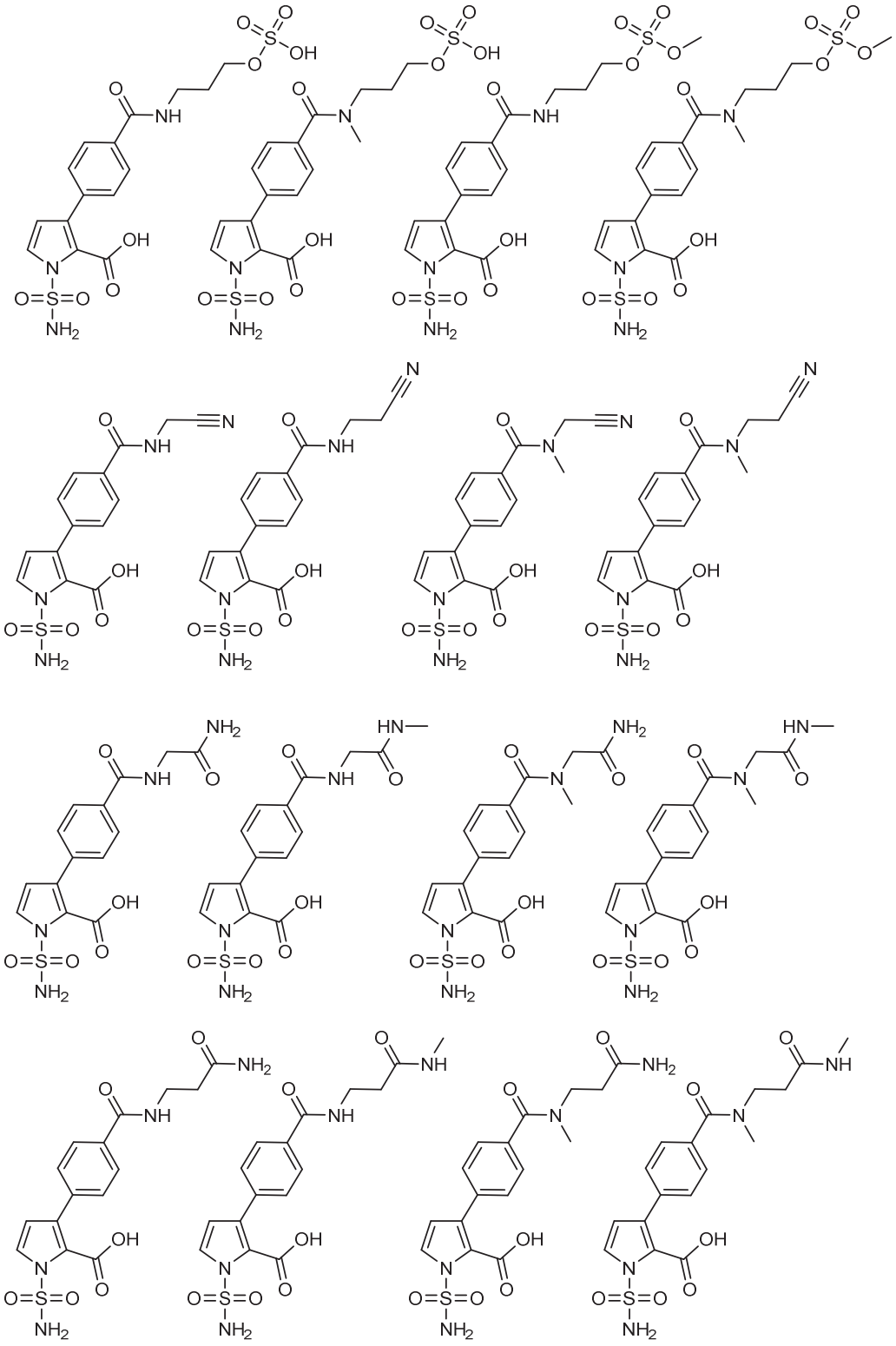
4. A compound as claimed in any preceding claim, wherein R^3 is selected from: $-CONH(CH_2)_2NHMe$, $-CON(Me)(CH_2)_2NHMe$, $-CONH(CH_2)_3NHMe$, $-CON(Me)(CH_2)_2NHMe$, $-CONH(CH_2)_3OSO_2OH$, $-CON(Me)(CH_2)_3OSO_2OH$, $-CONH(CH_2)_3OSO_2OMe$, $-CON(Me)(CH_2)_3OSO_2OMe$, $-CONHCH_2CN$, $-CONH(CH_2)_2CN$, $-CON(Me)CH_2CN$, $-CON(Me)(CH_2)_2CN$, $-CONH(CH_2)_2C(=O)OH$, $-CON(Me)(CH_2)_2C(=O)OH$, $-CONHCH_2C(=O)OH$, $-CON(Me)CH_2C(=O)OH$, $-CONHCH_2C(=O)NH_2$, $-CONMeCH_2C(=O)NH_2$, $-CONHCH_2C(=O)NHMe$, $-CONMeCH_2C(=O)NHMe$, $-CONH(CH_2)_2C(=O)NH_2$, $-CONMe(CH_2)_2C(=O)NH_2$, $-CONH(CH_2)_2C(=O)NHMe$, $-CONMe(CH_2)_2C(=O)NHMe$.

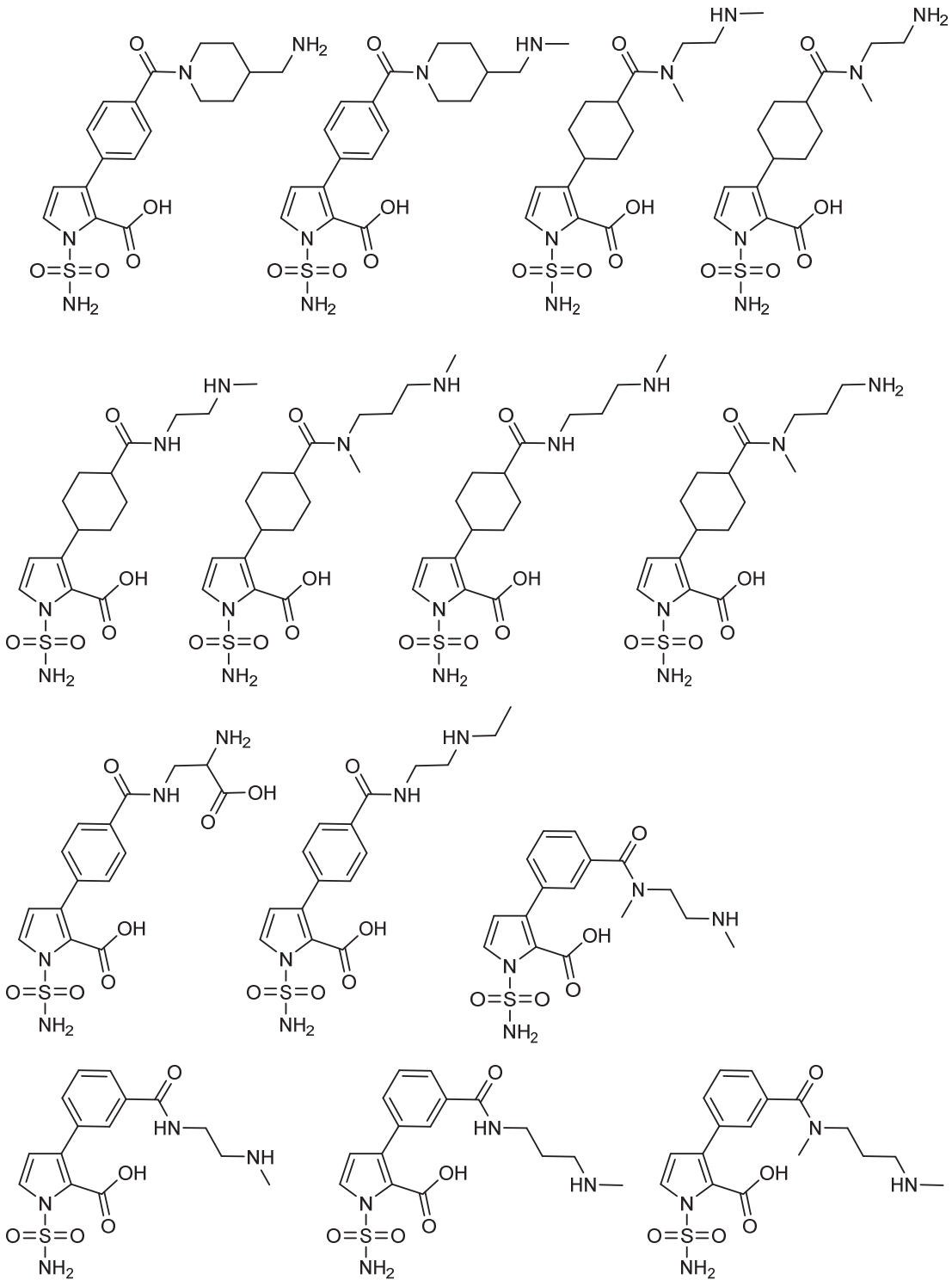
5. A compound as claimed in any preceding claim, wherein R^4 is selected at each occurrence from the group comprising: H, halo, substituted or unsubstituted C_{1-6} alkyl, and substituted or unsubstituted C_{3-8} cycloalkyl, optionally wherein R^4 is independently selected at each occurrence from H and Me.

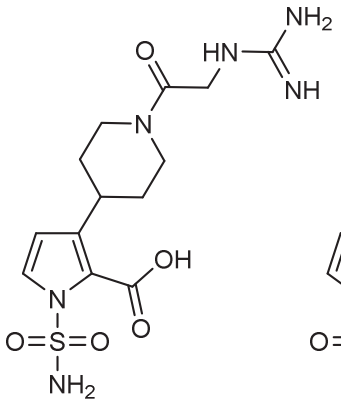
6. A compound as claimed in claim 5, wherein R^5 and R^6 are each independently selected from the group comprising: H, Me, Et, ^{n}Pr, ^{i}Pr and ^{n}Bu, optionally wherein R^5 and R^6 are each independently H or Me.

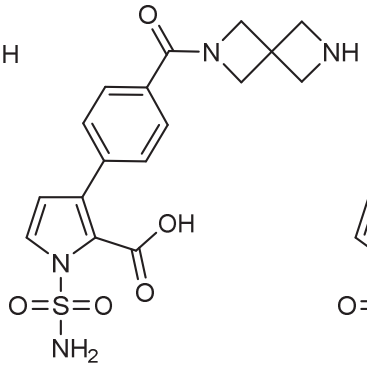
7. A compound as claimed in claim 1, wherein the compound is selected from:

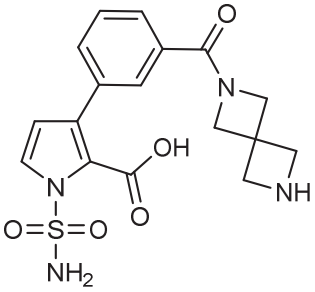


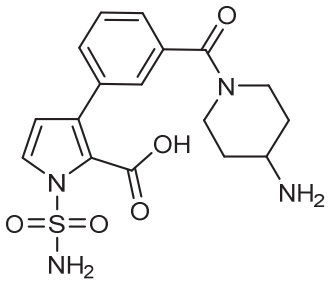


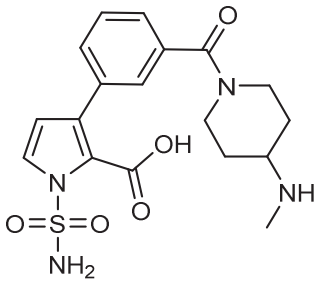


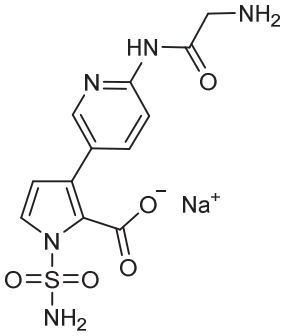


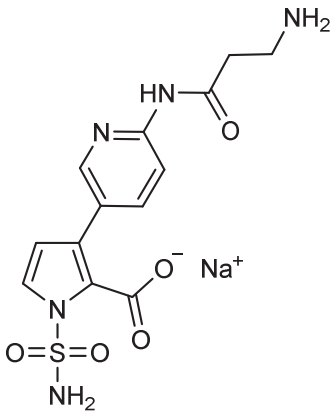


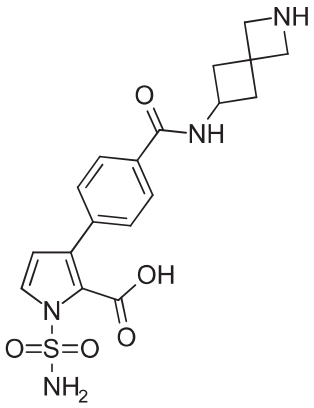


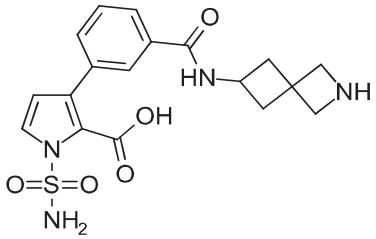


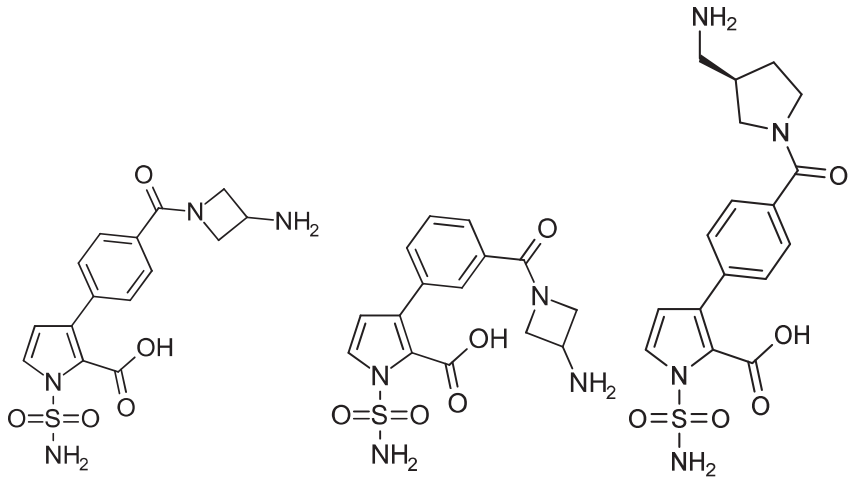












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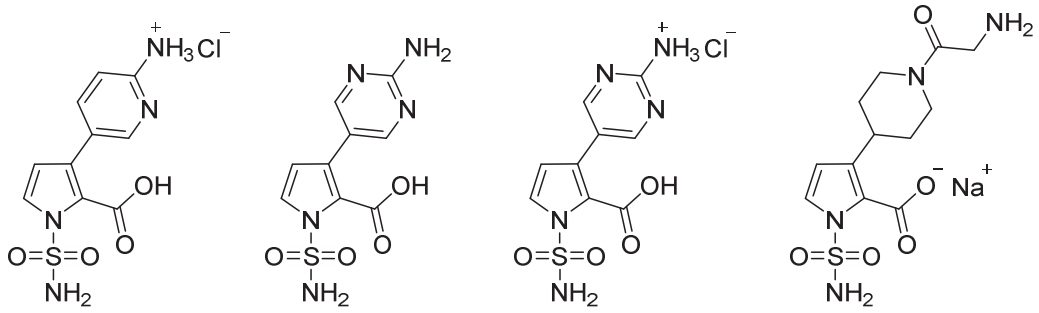

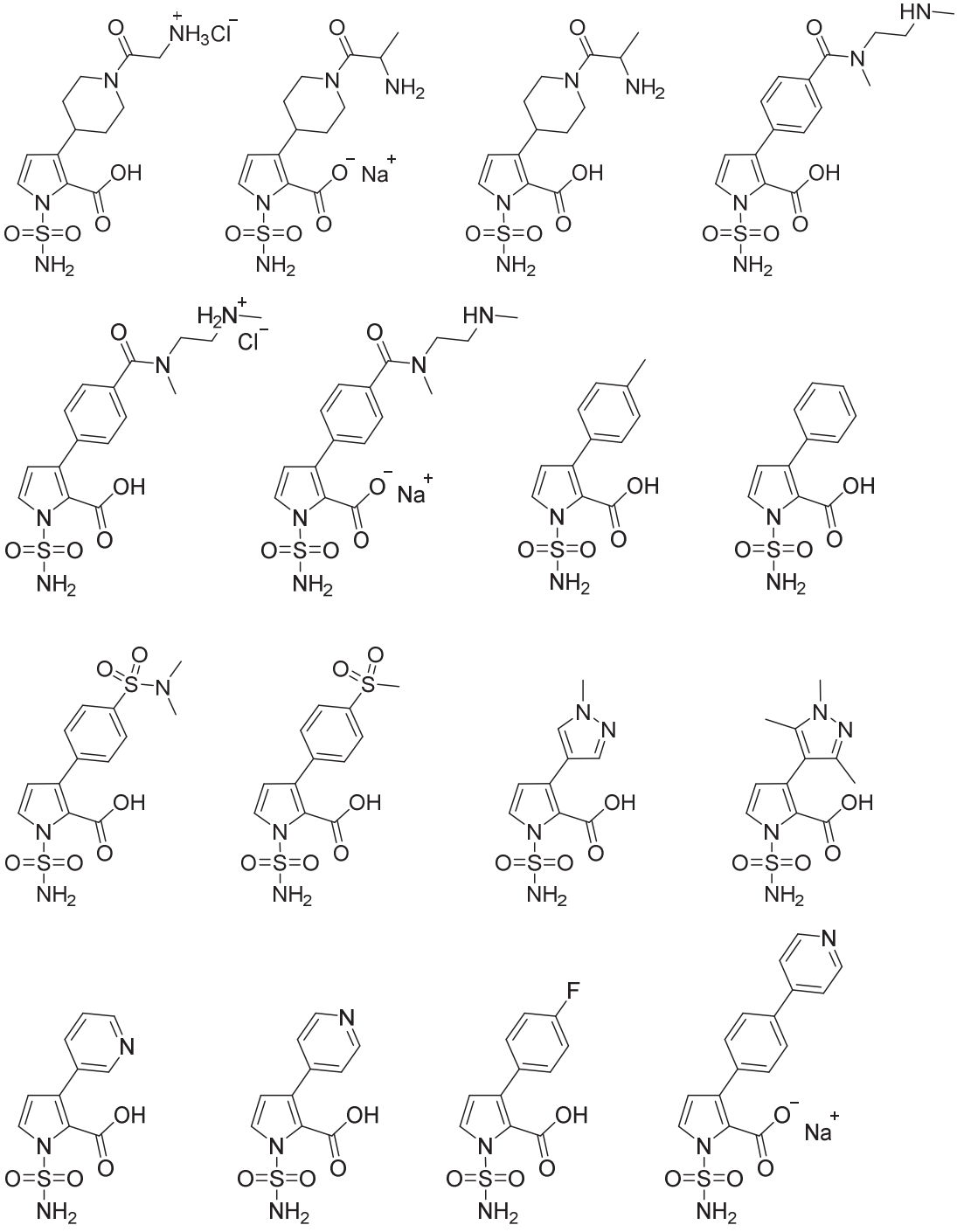

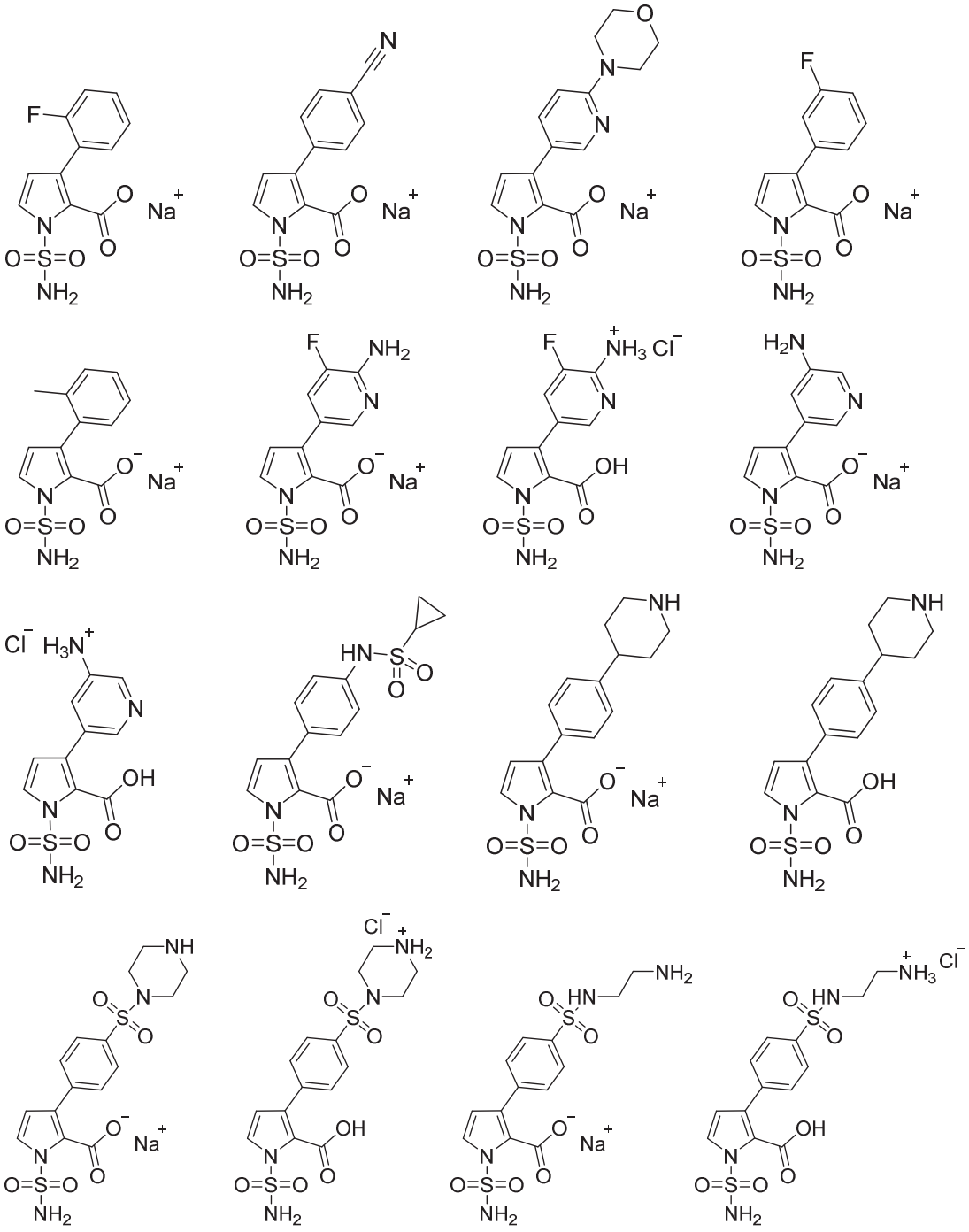

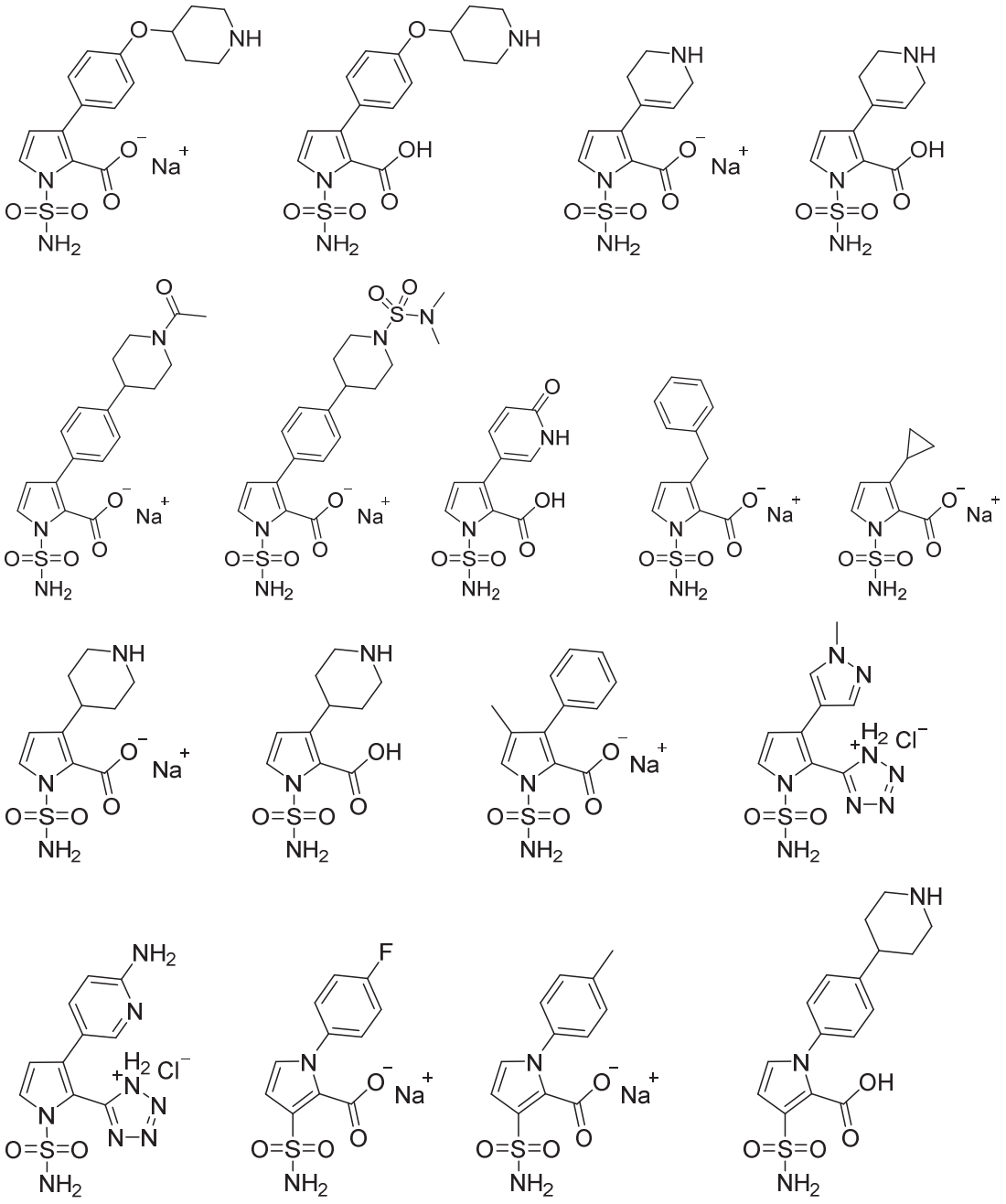

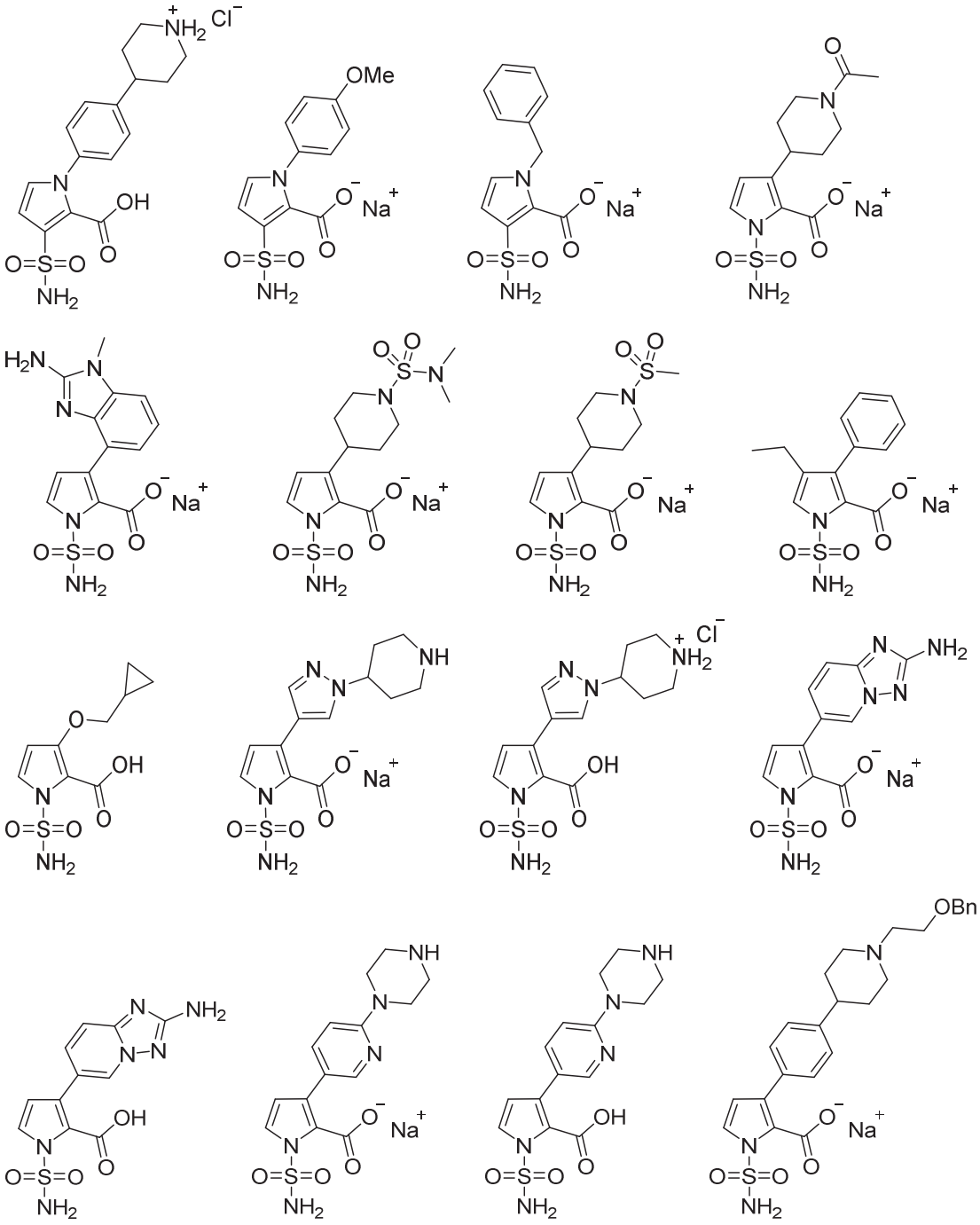

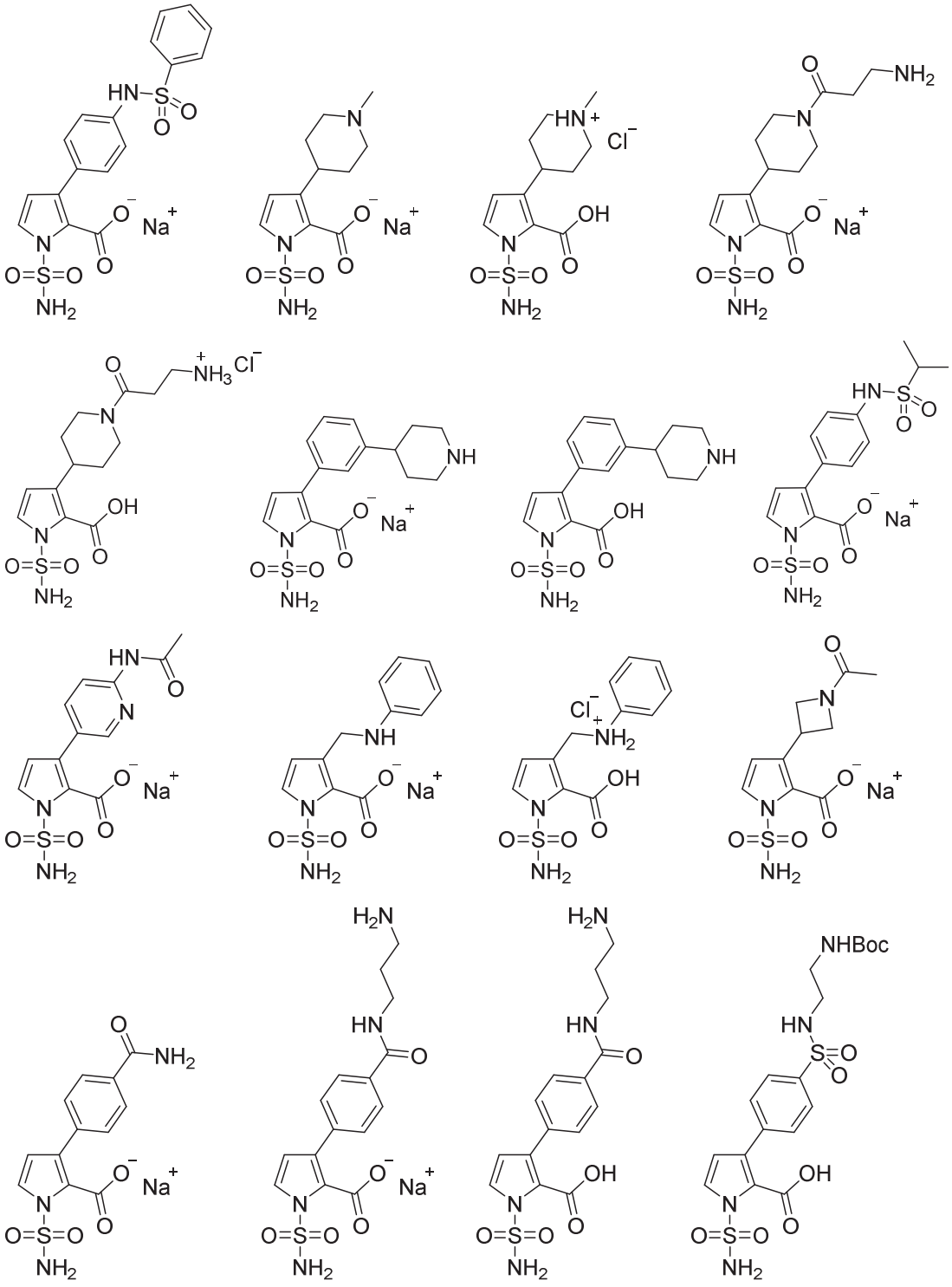

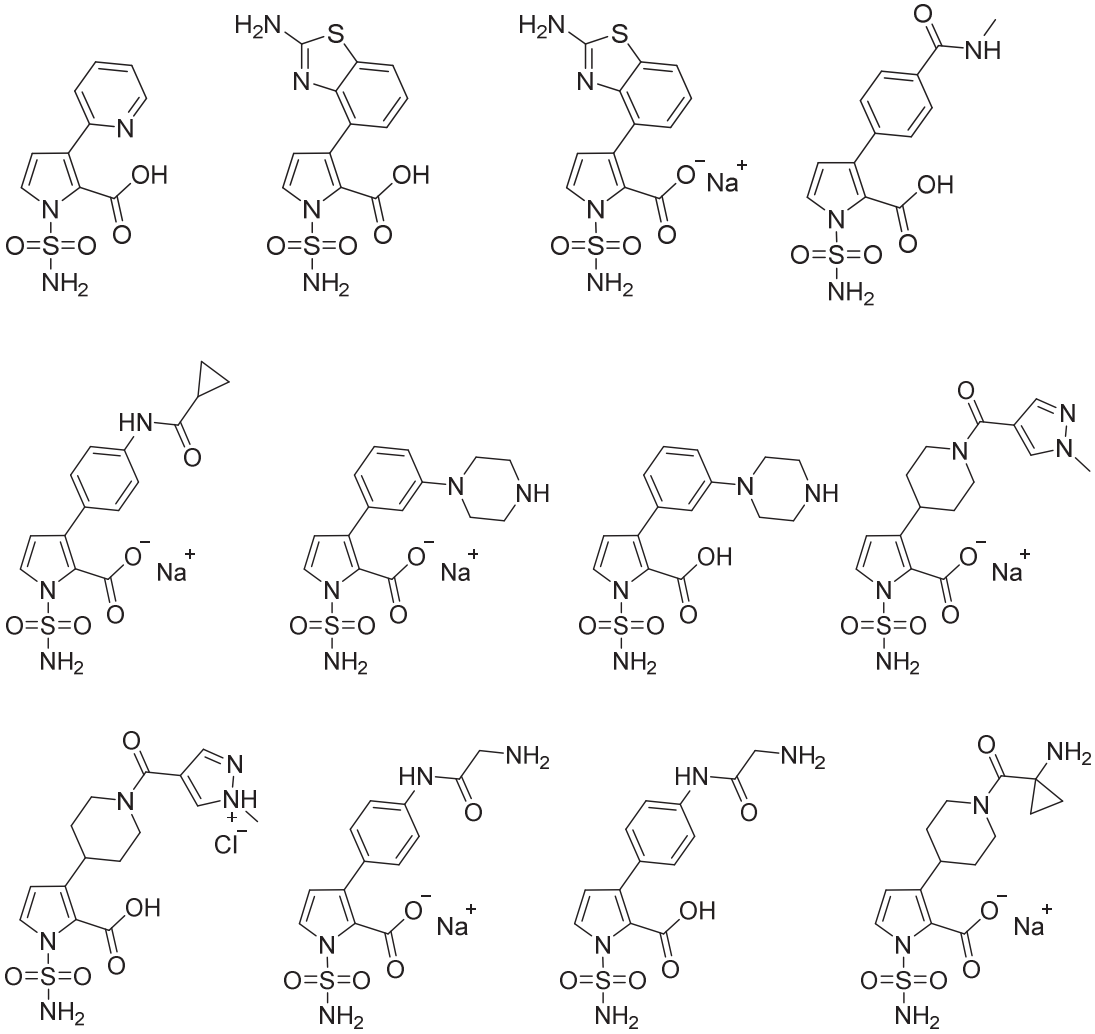

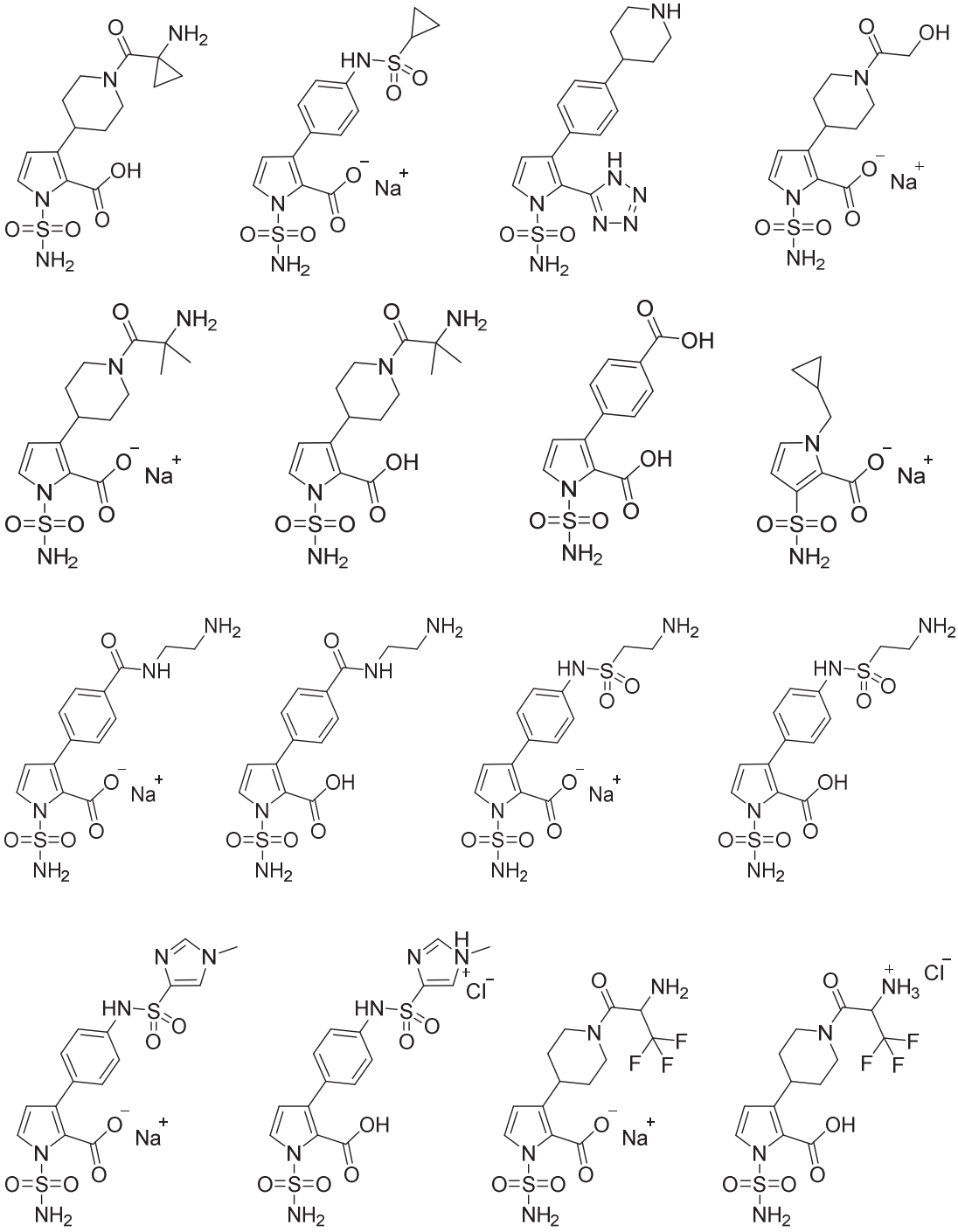

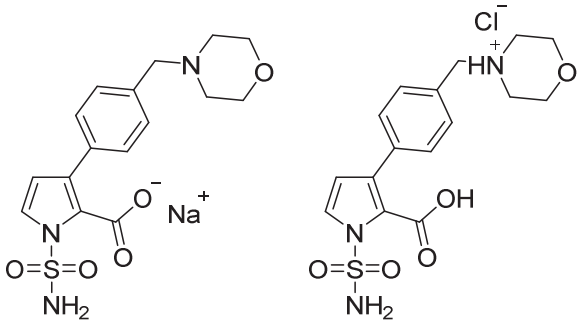

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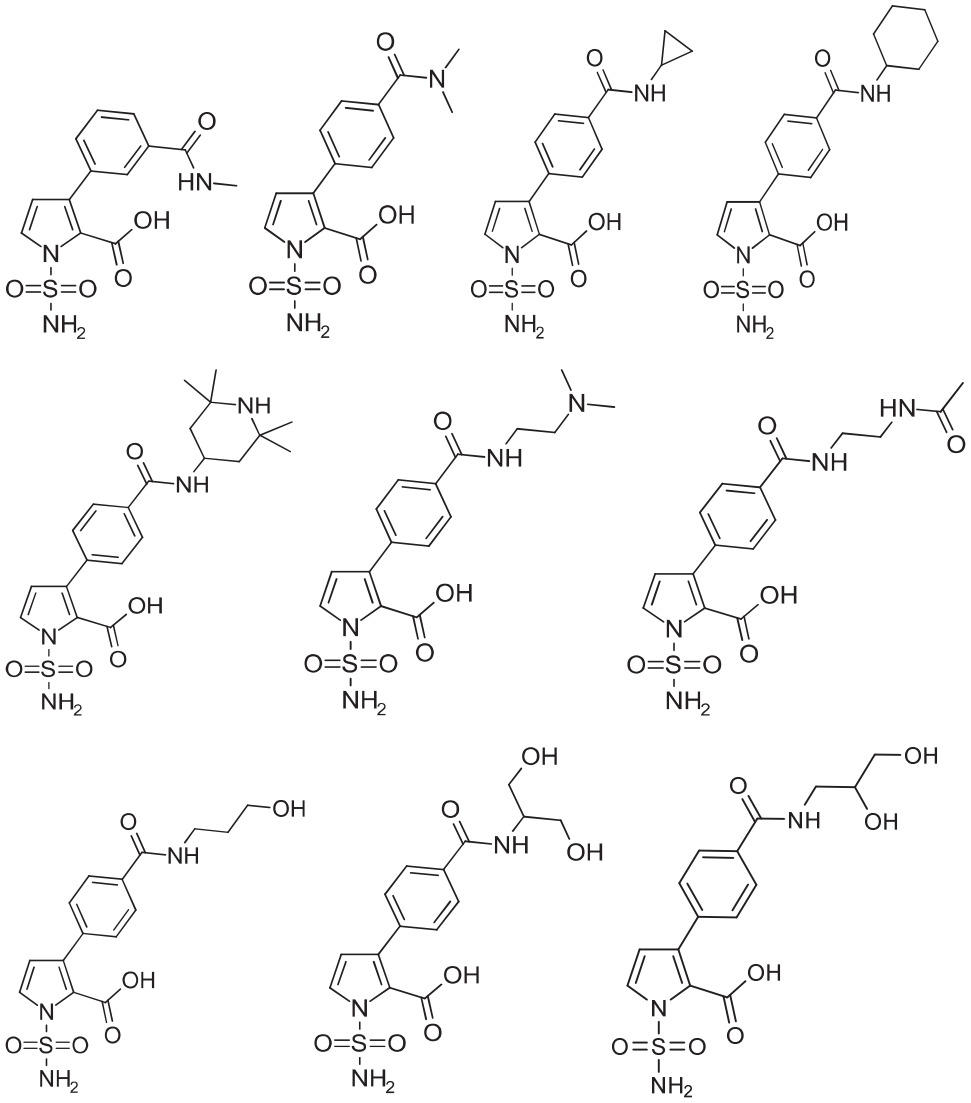

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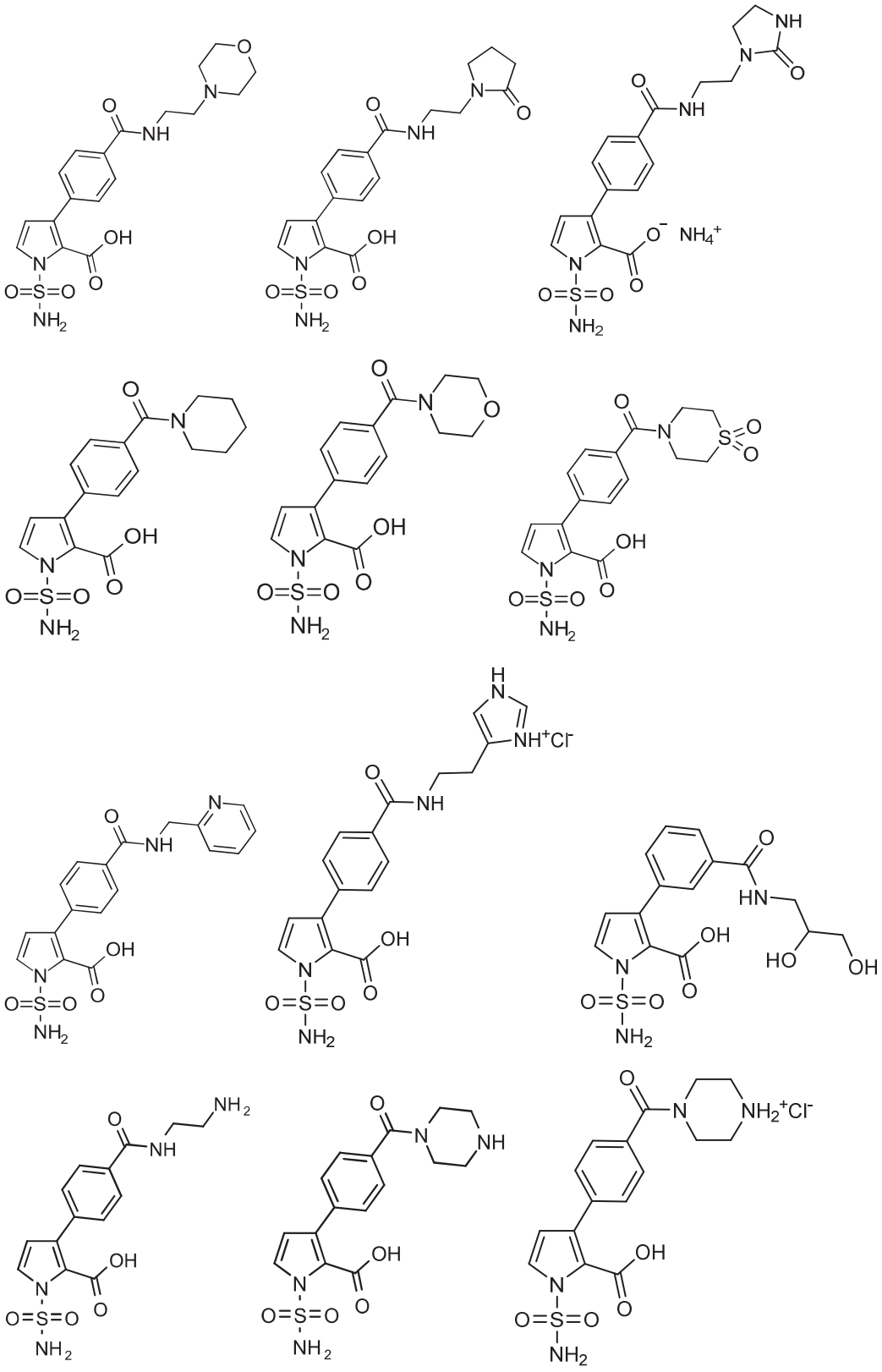

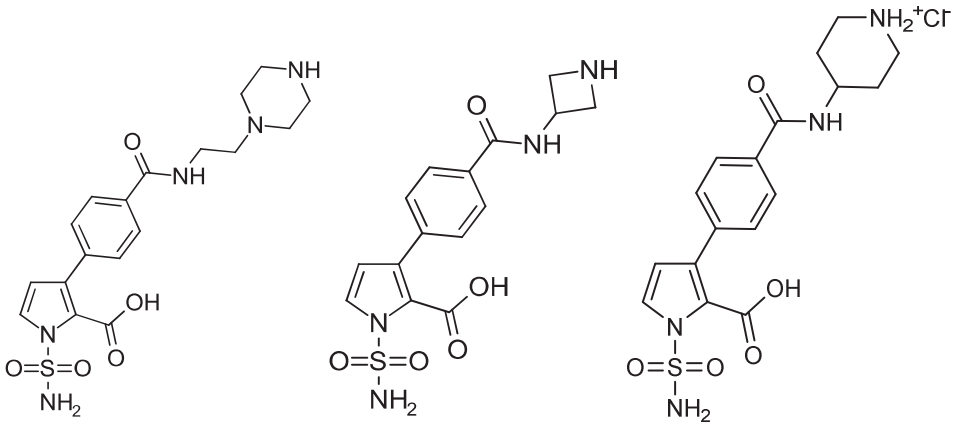

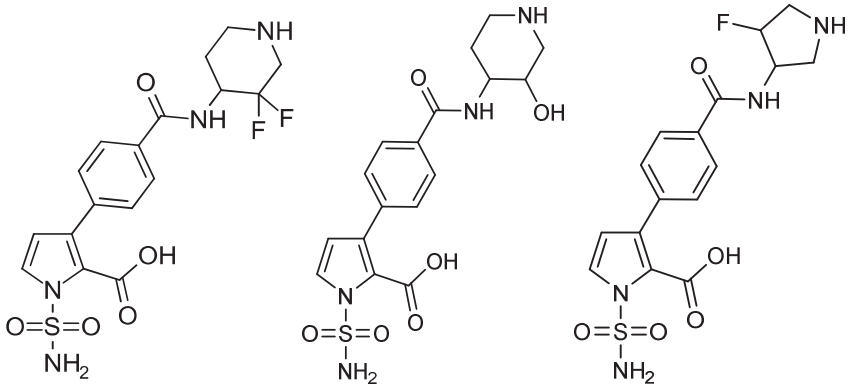

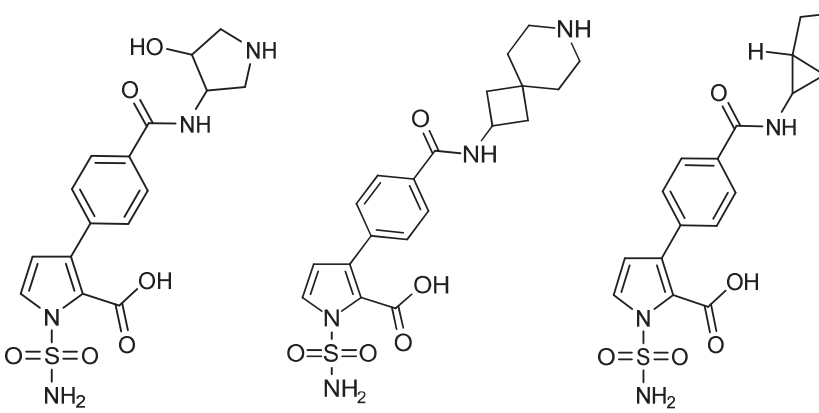

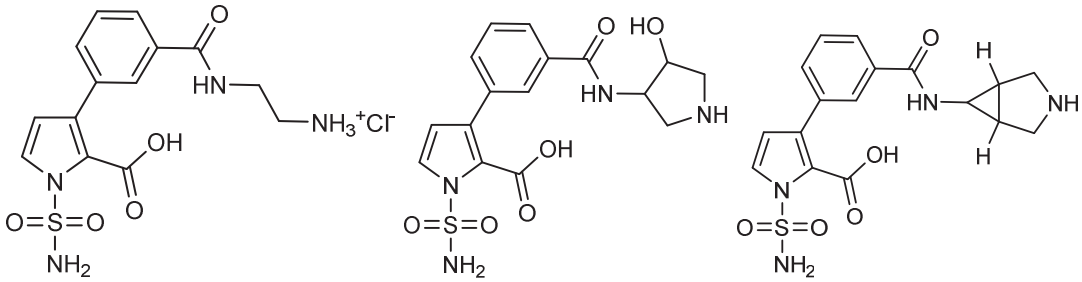

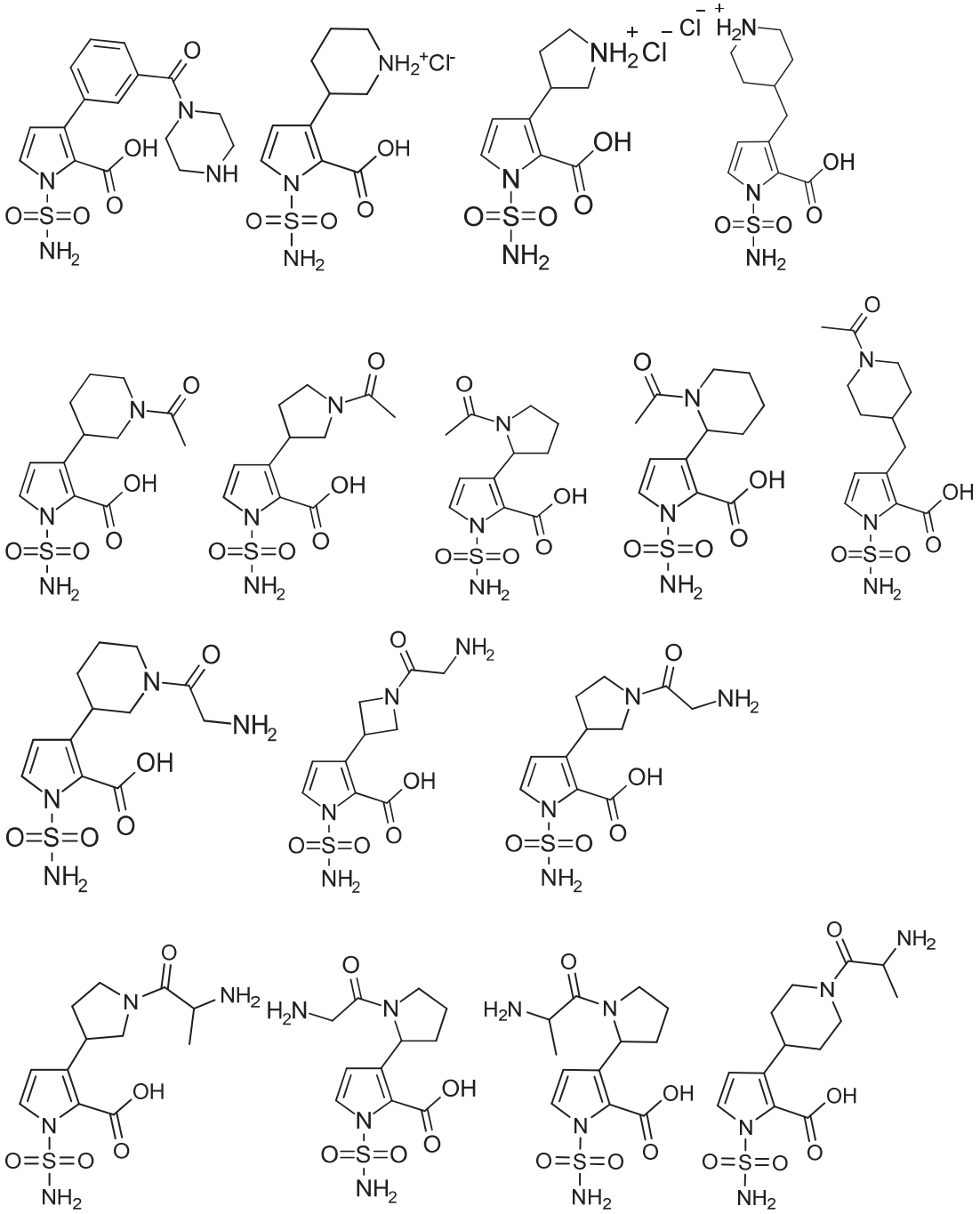

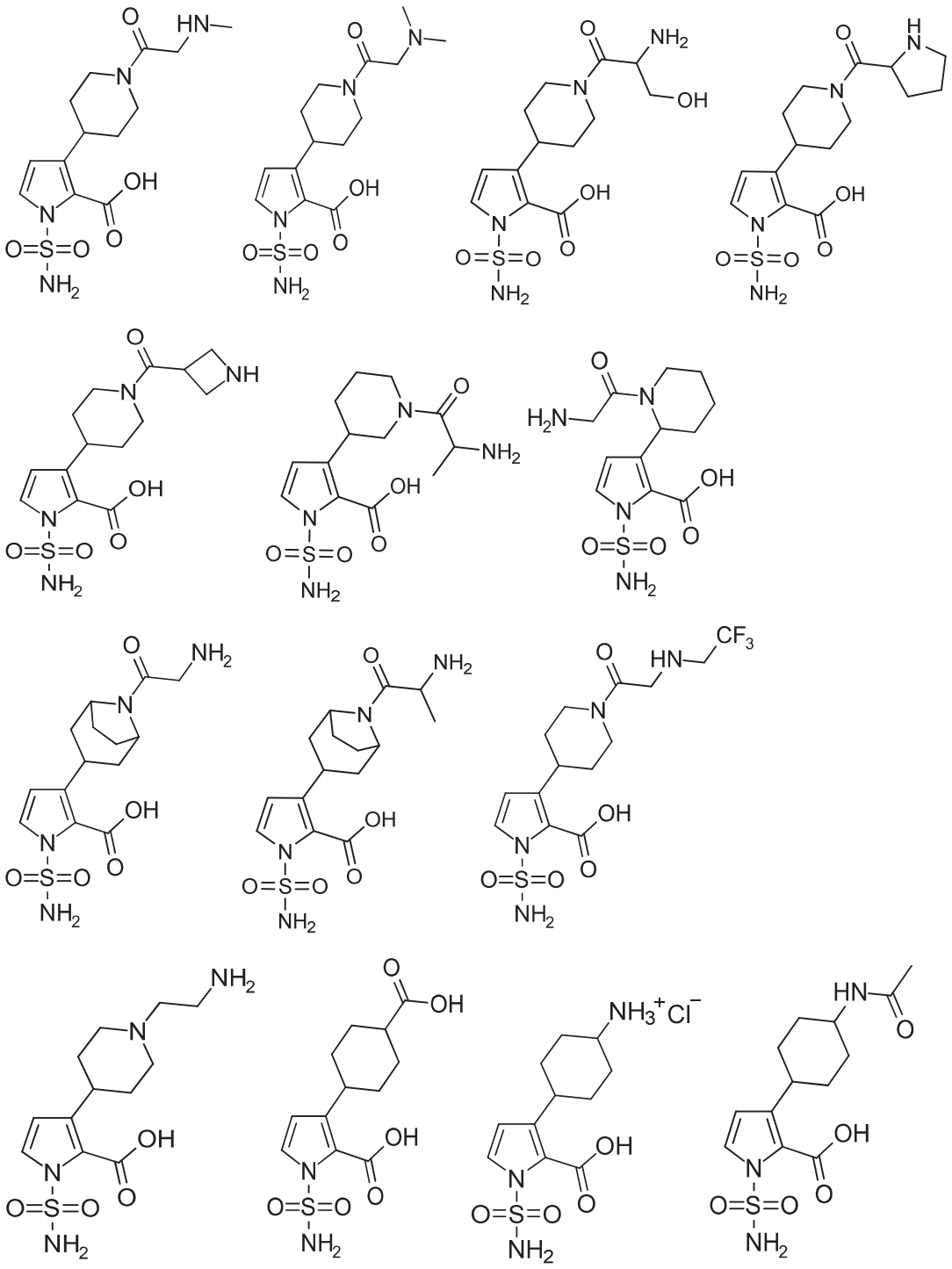

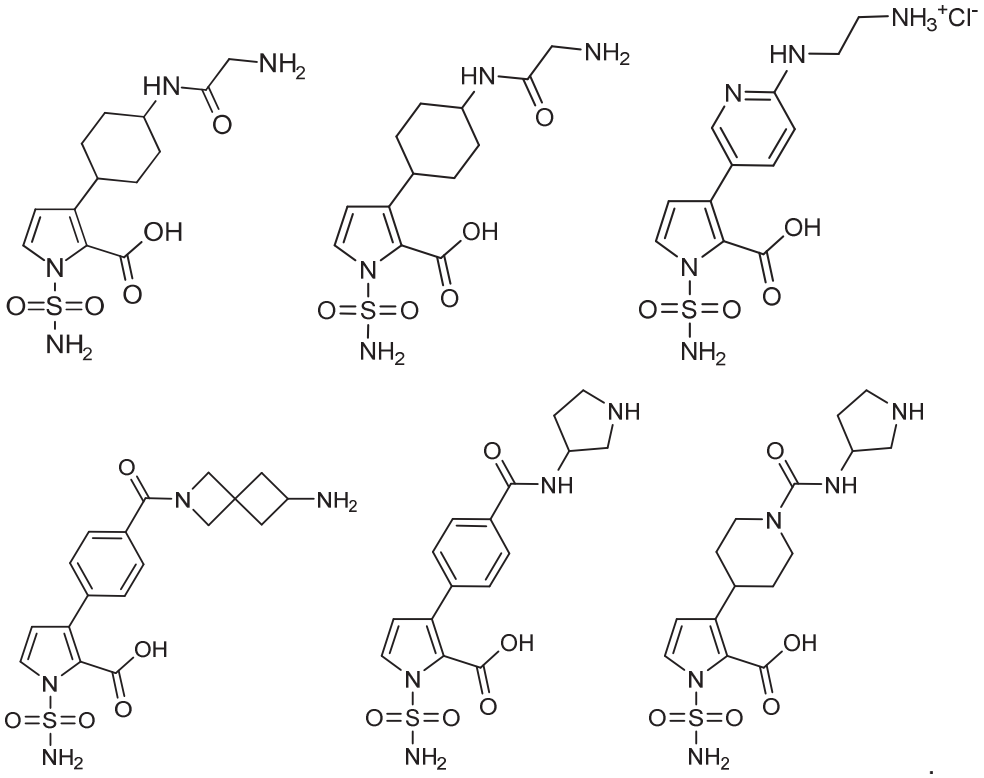

10. A pharmaceutical composition which comprises a compound of any preceding claim, or a pharmaceutically acceptable salt, hydrate or solvate thereof, in association with one or more pharmaceutically acceptable excipients.

11. A compound of any of claims 1 to 9, or a pharmaceutically acceptable salt, hydrate or solvate thereof, or a formulation as claimed in claim 10, for use in the inhibition of metallo-β-lactamase activity.

12. A compound of any of claims 1 to 9, or a pharmaceutically acceptable salt, hydrate or solvate thereof, or a composition as claimed in claim 10, for use in the treatment of a disease or disorder in which metallo-β-lactamase activity is implicated.

13. Use of a compound of any of claims 1 to 9, or a pharmaceutically acceptable salt, hydrate or solvate thereof, in the manufacture of a medicament for treating a disease or disorder caused by aerobic or anaerobic Gram-positive, or aerobic or anaerobic Gram-negative bacteria.

14. The use of claim 13 wherein the disease or disorder is caused by metallo-β-lactamase producing Gram-positive bacteria.

15. The use of claim 13 or 14 wherein the disease or disorder is selected from: pneumonia, respiratory tract infections, urinary tract infections, intra-abdominal infections, skin and soft tissue infections, bloodstream infections, septicaemia, intra- and post-partum infections, prosthetic joint infections, endocarditis, acute bacterial meningitis and febrile neutropenia,

optionally wherein the disease or disorder selected from: community acquired pneumonia, nosocomial pneumonia (hospital-acquired/ventilator-acquired), respiratory tract infections associated with cystic fibrosis, non-cystic fibrosis bronchiectasis, COPD, urinary tract infection, intra-abdominal infections, skin and soft tissue infection, bacteraemia, septicaemia, intra- and post-partum infections, prosthetic joint infections, endocarditis, acute bacterial meningitis and febrile neutropenia,

further optionally wherein the disease or disorder selected from: community acquired pneumonia, nosocomial pneumonia (hospital-acquired/ventilator-acquired), respiratory tract infections associated with cystic fibrosis, non-cystic fibrosis bronchiectasis, COPD, urinary tract infection, intra-abdominal infections, skin and soft tissue infection, bacteraemia and septicaemia.

16. Use of a compound of any of claims 1 to 9, or a pharmaceutically acceptable salt, hydrate or solvate thereof, or a formulation as claimed in claim 10, in the manufacture of a medicament for the treatment of a bacterial infection.

17. Use of a compound of any of claims 1 to 9, or a pharmaceutically acceptable salt, hydrate or solvate thereof, or a formulation as claimed in claim 10, in the manufacture of a medicament for use in combinatorial therapy for the treatment of a bacterial infection, wherein said medicament is to be administered in combination with an antibacterial agent.

18. Use of a compound of any of claims 1 to 9, or a pharmaceutically acceptable salt, hydrate or solvate thereof, or a formulation as claimed in claim 10 and an antibacterial agent in the manufacture of a medicament for combination therapy to treat a bacterial infection

19. Use of a compound of any of claims 1 to 9, or a pharmaceutically acceptable salt, hydrate or solvate thereof, or a formulation as claimed in claim 10 in the manufacture of a first medicament and use of an antibacterial agent in the manufacture of a second

medicament, wherein the first and second medicaments are to be used in combination therapy to treat a bacterial infection.

20. The use as claimed in any one of claims 17 to 19, wherein the compound and the antibacterial agent are presented in the same dosage forms.

21. The use as claimed in any one of claims 17 to 20, wherein the antibacterial agent is a carbapenem, and preferably the carbapenems is selected from the group comprising: meropenem, faropenem, imipenem, ertapenem, doripenem, panipenem/betamipron and biapenem, razupenem, tebipenem, lenapenem and tomopenem, optionally wherein the antibacterial agent is meropenem.

22. The use as claimed in any of claims 16 to 21, wherein the bacterial infection is caused by bacteria from one or more of the following families; *Streptococcus, Acinetobacter, Staphylococcus, Clostridioides, Pseudomonas*, *Escherichia, Salmonella, Klebsiella, Legionella, Neisseria, Enterococcus*, *Enterobacter, Serratia, Stenotrophomonas, Aeromonas, Mycobacterium, Morganella, Yersinia, Pasteurella, Haemophilus, Citrobacter, Burkholderia, Brucella, or Moraxella.*