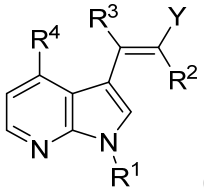
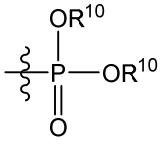
CLAIMS

1. A compound of formula I or a pharmaceutically acceptable salt thereof,



(I)

wherein:

Y is carboxyl, ester, amide, or  ;

R^1 is ~~H, aryl,~~ aralkyl~~,~~ or aralkylacyl~~, and is~~ optionally substituted by one or more R^5;

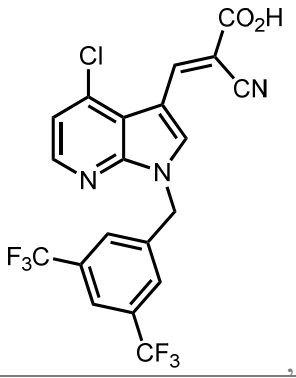
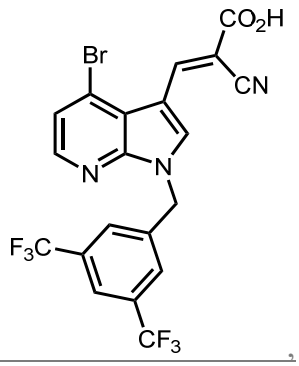
R^2 is CN or carboxyl;

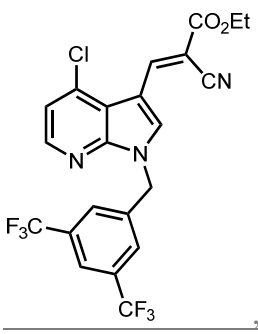
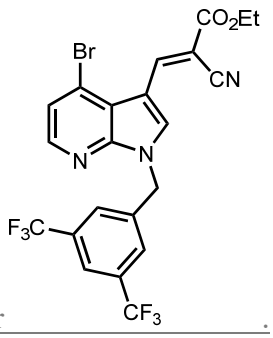
R^3 is H;

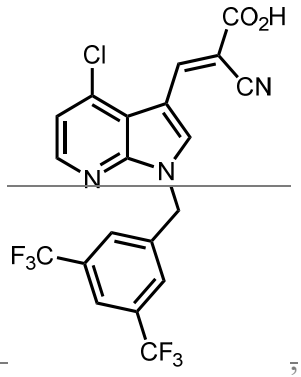
R^4 is independently alkyl, alkenyl, alkynyl, azido, halo, hydroxy, carboxyl, ester, or CN;

R^5 is independently selected from alkyl, alkoxy, or halo;

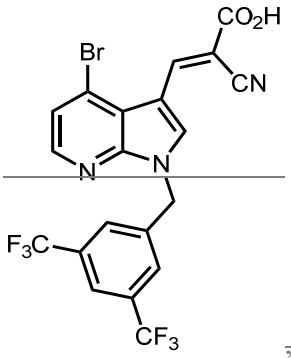
R^{10} is H or alkyl; and

~~n is 0-4.~~provided that the compound is not  ,  ,

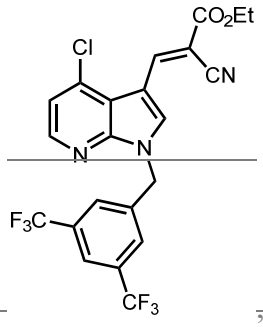
 , or  .



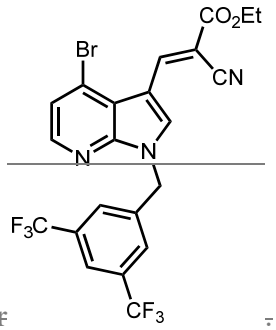
~~2. The compound of claim 1, wherein the compound is not~~ ;



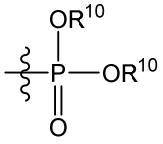
~~,~~



~~, or~~



~~.~~



~~3~~2. The compound of claim 1~~ or 2~~, wherein Y is .

~~4~~3. The compound of ~~any one of claims 1-3~~claim 1 or 2, wherein R^{10} is H.

~~5~~4. The compound of ~~any one of~~ claim~~s~~ 1- or 2~~3~~, wherein R^{10} is alkyl (e.g., ethyl).

~~6~~5. The compound of any one of claims 1-~~5~~4, wherein Y is ester or carboxyl.

~~7~~6. The compound of any one of claims 1-~~6~~5, wherein R^2 is CN.

~~8~~7. The compound of any one of claims 1-~~6~~5, wherein R^2 is carboxyl.

~~9. The compound of any one of claims 1-8, wherein R^+ is H.~~

~~10~~8. The compound of any one of claims 1-~~8~~7, wherein R^1 is aralkyl (e.g., benzyl or phenethyl).

~~11~~9. The compound of any one of claims 1-~~8~~7, wherein R^1 is aralkyl (e.g., benzyl or phenethyl) and is substituted by one or more R^5 (preferably on the phenyl ring).

~~12~~10. The compound of any one of claims 1-~~8~~7, wherein R^1 is aralkylacyl (e.g., phenylacetyl), and is substituted by one or more R^5 (preferably on the phenyl ring).

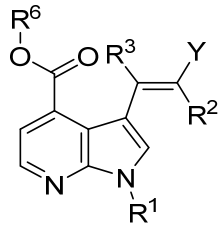
~~13~~11. The compound of any one of claims ~~9~~8-~~12~~10, wherein R^1 is substituted by one or two R^5, and wherein each R^5 is independently selected from fluoroalkyl or fluoro.

~~14~~12. The compound of any one of claims ~~9~~8-~~13~~10, wherein R^1 is substituted by two R^5, and wherein each R^5 is trifluoromethyl.

~~15~~13. The compound of any one of claims 1-~~14~~12, wherein R^4 is selected from iodo, fluoro, alkenyl (e.g., vinyl), CN, azido, alkynyl (e.g., acetylenyl), fluoroalkyl (e.g., trifluoromethyl), carboxyl, and ester (e.g., methyl ester or ethyl ester).

~~16~~14. The compound of any one of claims 1-~~15~~13, wherein R^4 is not chloro or bromo.

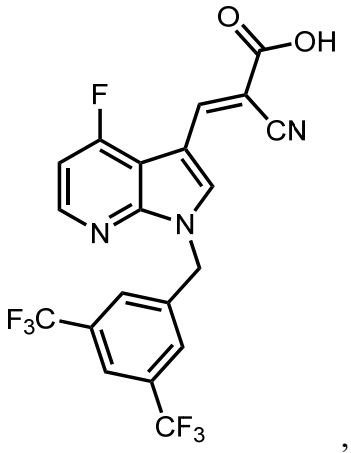
~~17~~15. The compound of any one of claims 1-~~16~~14, wherein the compound is represented by formula Ia:

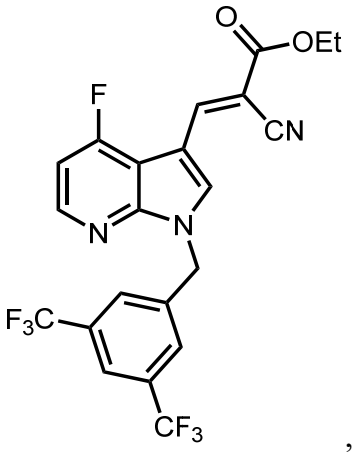


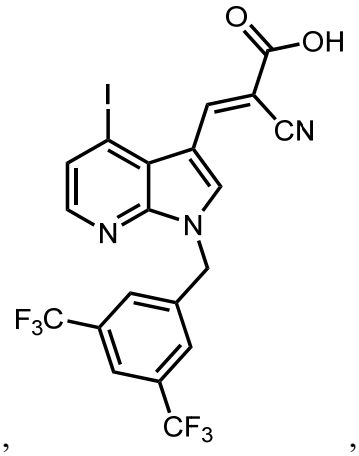
(Ia)

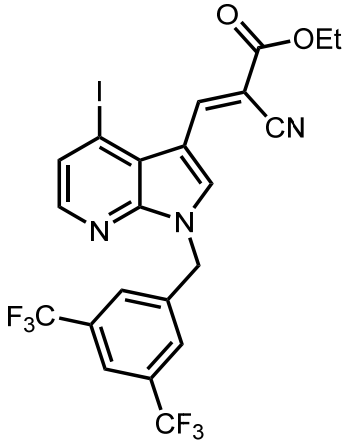
wherein R^6 is H, alkyl, aryl, or aralkyl.

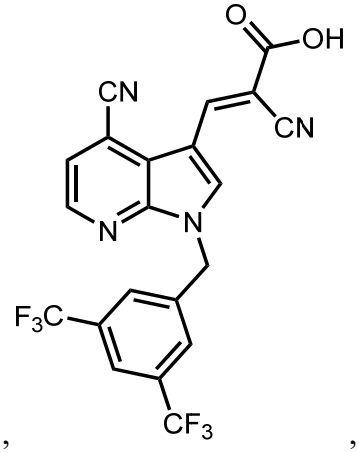
~~18~~16. A compound selected from:

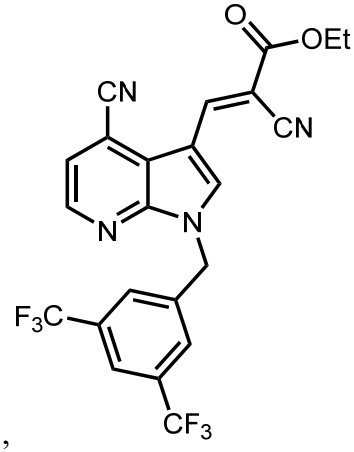


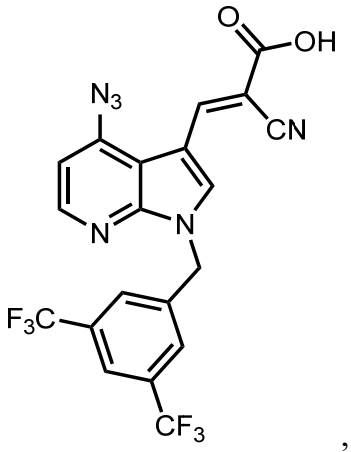
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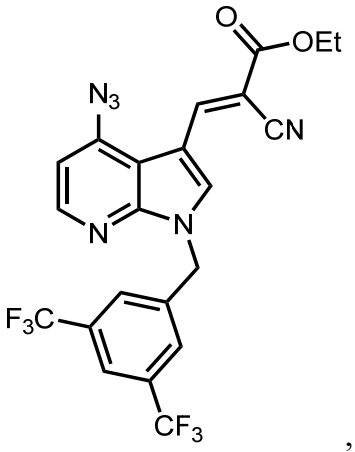
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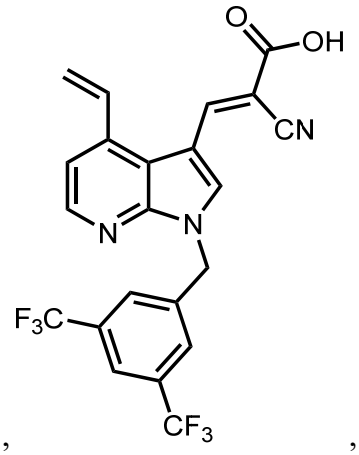
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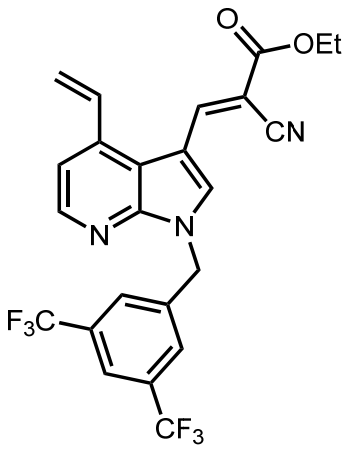
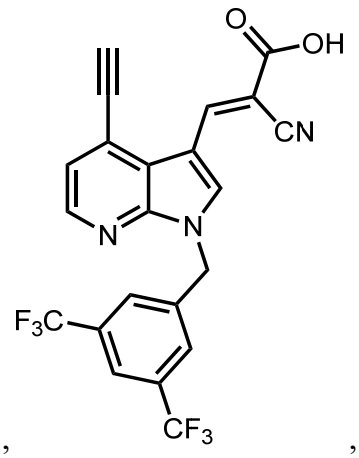
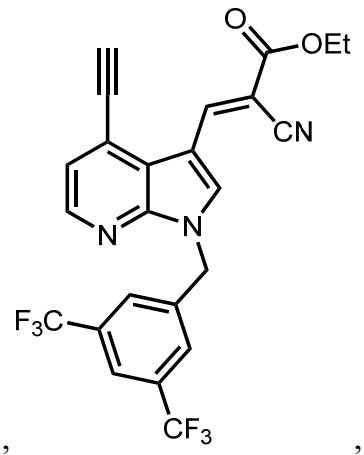
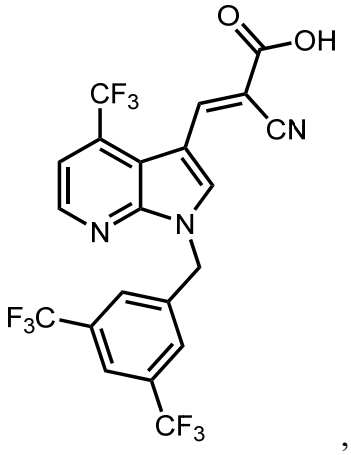
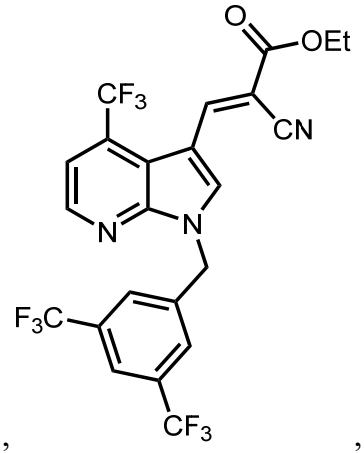
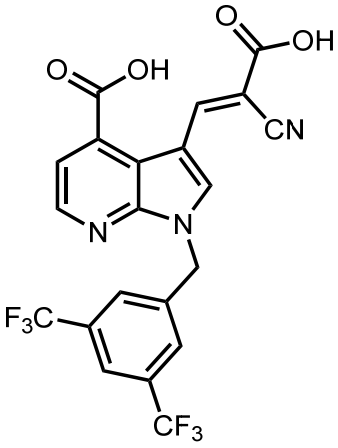
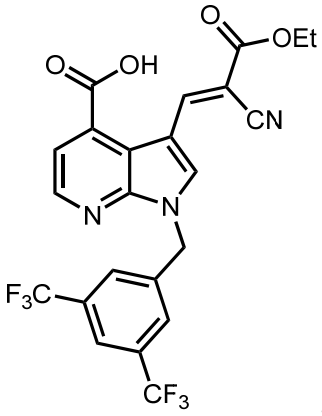
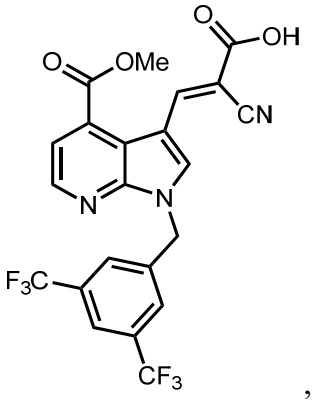
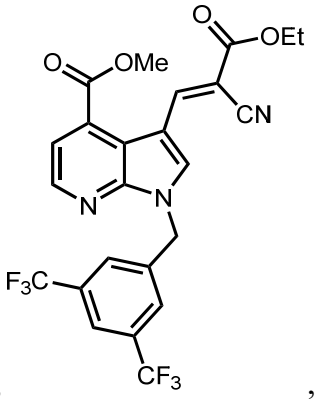
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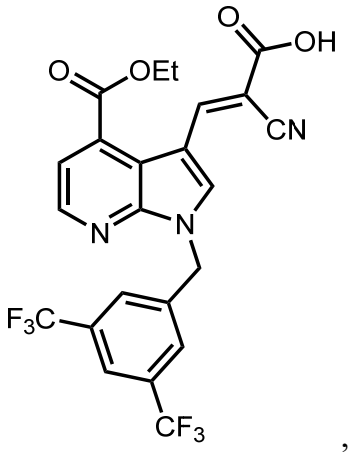
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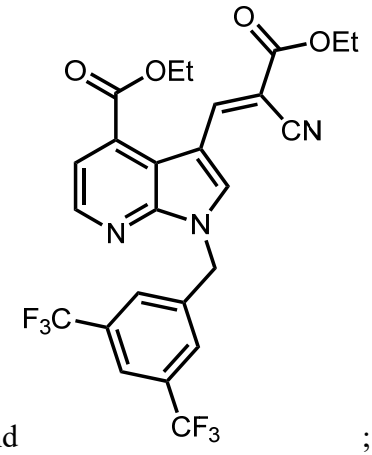
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, and 

; or a pharmaceutically acceptable salt thereof.

~~19~~17. A pharmaceutical composition comprising a compound of any one of the preceding claims and a pharmaceutically acceptable excipient.

~~20~~18. The pharmaceutical composition of claim ~~19~~17, wherein the pharmaceutical composition is formulated for topical administration.

~~21. Use of a compound of any one of claims 1-18 in the manufacture of a medicament for promoting hair growth.~~

~~22~~19. Use of a compound of any one of claims 1-~~18~~ 16 in the manufacture of a medicament for treating a disease or disorder affecting hair growth.

~~23~~20. The use of claim ~~22~~19, wherein disease or disorder affecting hair growth is baldness or alopecia.