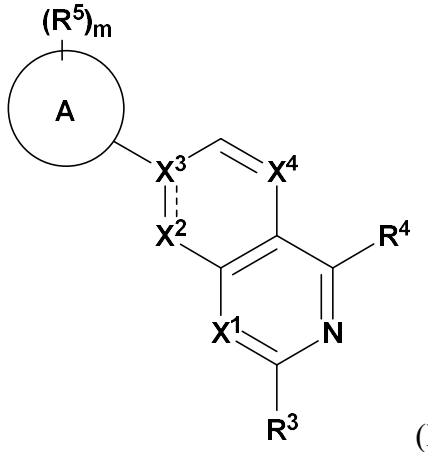
1. A compound of Formula (I):



(I)

or a pharmaceutically acceptable salt thereof, wherein:

each dashed line represents a single bond or a double bond;

X^1 is CR^1 or N;

X^2 is CR^2, C(=O), or N;

X^3 is C or N; provided that when X^2 is C(=O), X^3 is N;

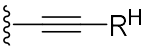
X^4 is CH or N;

Ring A is phenyl or 5-6 membered heteroaryl;

R^1 is hydrogen, halogen, cyano, 3-10 membered heterocyclyl, C1-C6 alkyl optionally substituted with 3-6 membered heterocyclyl optionally substituted with -C(=O)C1-C6 alkyl or -C(=O)OR^A, C1-C6 alkoxy, -C(=O)-3-6 membered heterocyclyl optionally substituted with C1-C6 alkyl, or -OR^B;

R^B is a 3-6 membered heterocyclyl, a 5-6 membered heteroaryl, a C6-C10 aryl, or a C3-C6 cycloalkyl each optionally substituted with 1-3 independently selected halogen, C1-C6 alkyl, C1-C6 haloalkyl, C1-C6 alkoxy, cyano, hydroxy, -C(=O)OH, -C(=O)C1-C6 alkyl, –$S(O_2)$-C1-C6 alkyl, or -NR^CR^D;

R^2 is hydrogen, halogen, C1-C6 alkyl, C1-C6 alkoxy, -C(=O)-3-6 membered heterocyclyl, -NH-C3-C6 cycloalkyl-C(=O)OR^A, or -O-C3-C6 cycloalkyl-C(=O)OR^A;

R^3 is hydrogen, halogen, C1-C6 alkyl, cyano, C3-C6 cycloalkyl, -X-R^G, or ;

R^4 is hydrogen or C1-C6 alkyl;

R^5 is hydrogen, C1-C6 alkyl optionally substituted with 3-6 membered heterocyclyl; -X-R^E; -C3-C6 cycloalkyl-C(=O)OR^A; or ; or

R^5 and the carbon and/or nitrogen atom to which it is attached, forms a bond with an adjacent carbon or nitrogen atom, replacing the hydrogen atom on the adjacent carbon or nitrogen atom, and together R^5 and the two adjacent carbon and/or nitrogen atoms in Ring A form a (i) C6-C10 aryl optionally substituted with a 3-10 membered heterocyclyl optionally substituted with 1-2 independently selected C1-C6 alkyl or -C(=O)OR'; (ii) a 3-6 membered heterocyclyl; or a (iii) a 5-6 membered heteroaryl optionally substituted with 1-2 substituents independently selected from C1-C6 alkyl, C1-C6 haloalkyl, C1-C6 alkoxy, 3-10 membered heterocyclyl optionally substituted with 1-2 independently selected C1-C6 alkyl or C(=O)OR', and 5-6 membered heteroaryl optionally substituted with C1-C6 alkyl;

R^E is a 3-10 membered heterocyclyl, a 5-6 membered heteroaryl, or a C3-C6 cycloalkyl each optionally substituted with 1-3 independently selected C1-C6 alkyl optionally substituted with C1-C6 alkoxy, NR^IR^J, or -C(=O)OH;

R^F is a 3-6 membered heterocyclyl, a 5-6 membered heteroaryl, or a C3-C6 cycloalkyl each optionally substituted with C1-C6 alkyl; or a C2-C6 alkynyl optionally substituted with hydroxy;

R^G is a 3-6 membered heterocyclyl or a C3-C6 cycloalkyl each optionally substituted with 1-3 independently selected C1-C6 alkyl, -C(=O)C1-C6 alkyl, -C(=O)OH, or NR^CR^D;

R^H is a C1-C6 alkyl optionally substituted with hydroxy or a 3-6 membered heterocyclyl optionally substituted with C1-C6 alkyl;

X is –NH–, –NH(C=O)–, –NHC(=O)O–, –O–, – (C=O) – or CH_2;

each R^A, R^C, R^D, R^I, and R^J is independently selected from hydrogen and C1-C6 alkyl; and

m is 0, 1, or 2.

2. The compound of claim 1, wherein one of X^1, X^2, X^3, X^4 is N, and each one of the remaining of X^1, X^2, X^3, X^4 is independently selected from C, C(=O), CH, CR^1 or CR^2.

3. The compound of claim 1 or 2, wherein X^1 is N; X^2 is CR^2; X^3 is C; and X^4 is CH.

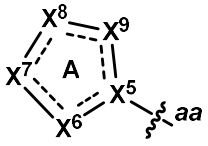
4. The compound of claim 1 or 2, wherein X^2 is N; X^1 is CR^1; X^3 is C; and X^4 is CH.

5. The compound of claim 1 or 2, wherein X^3 is N; X^1 is CR^1; X^2 is C(=O); and X^4 is CH.

6. The compound of claim 1 or 2, wherein X^4 is N; X^1 is CR^1; X^2 is CR^2; and X^3 is C.

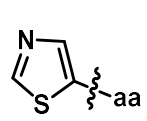
7. The compound of claim 1, wherein each one of X^1, X^2, X^3, X^4 is independently selected from C, C(=O), CH, CR^1 or CR^2.

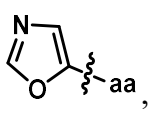
8. The compound of claim 1, wherein ring A is a 5-membered heteroaryl.

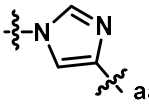
9. The compound of any one of claims 1-8, wherein Ring A is 

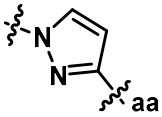
, wherein ***aa*** represents the point of connection to X^3, and each dash bond is independently a single bond or a double, and each one of X^5, X^6, X^7, X^8 and X^9 is independently selected from C, (C=O), C=NH, CH, N, O, or S.

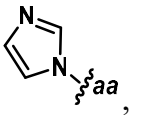
10. The compound of any one of claims 1-9, wherein Ring A is selected from the group consisting of thiazolyene, oxazolyene, imidazolyene, pyrazolyene, 1,2,4-triazolyene, 1,2,4-oxadiazolylene and 2-imine-thiazolylene.

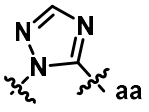
11. The compound of any one of claims 1-9, wherein Ring A is selected from the group consisting of 

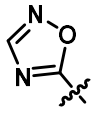
, 

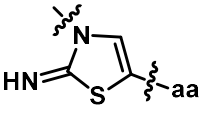
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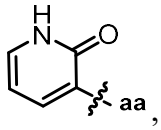
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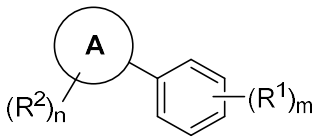
and 

, each of which is optionally substituted with one or two R^5, and ***aa*** represents the point of attachment to X^3 and the other wave line represents the point of connection to R^5.

12. The compound of any one of claims 1-7, wherein Ring A is a 6-membered heteroaryl.

13. The compound of any one of claims 1-7 or 12, wherein Ring A is , wherein **aa** represents the point of attachment to X^3.

14. A compound of Formula (II):



(II)

or a pharmaceutically acceptable salt thereof, wherein:

Ring A is a 5-14 membered heteroaryl or a 5-14 membered heterocyclyl;

each R^1 is independently halogen, hydroxyl, cyano, C1-C6 alkyl, C1-C6 alkoxy, -$C(=O)OR^A$, -NR^BR^C, and -$C(=O)NR^BR^C$;

each R^2 is independently –$C(=O)OR^D$, C1-C6 alkyl, C2-C6 alkynyl optionally substituted with 4-8 membered heterocyclyl optionally substituted with C1-C6 alkyl, -C(=O)-phenyl, -(C1-C6 alkyl)-phenyl, -(C1-C6 alkyl)-4-10 membered heterocyclyl optionally substituted with C1-C6 alkyl, 4-10 membered heterocyclyl optionally substituted with C1-C6 alkyl or -CO_2C1-C6 alkyl, phenyl optionally substituted with cyano or fluoro, -$NHC(=O)R^E$, 5-6 membered heteroaryl optionally substituted with C1-C6 alkoxy,

m is 1, 2, or 3;

n is 0, 1, 2, or 3;

each R^A, R^B, R^C, and R^D is independently hydrogen or C1-C6 alkyl; and

each R^E is independently C3-C6 cycloalkyl, 4-8 membered heterocyclyl optionally substituted with C1-C6 alkyl, or 5-6 membered heteroaryl optionally substituted with C1-C6 alkyl.

15. The compound of claim 14, wherein Ring A is a 5-6 membered heteroaryl.

16. The compound of claim 14 or 15, wherein Ring A is thiazole or pyrazole.

17. The compound of claim 14 or 15, wherein Ring A is pyridine or pyrimidin-4(3H)-one.

18. The compound of claim 14, wherein Ring A is a bicyclic heteroaryl or a bicyclic heterocyclyl.

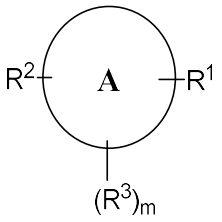
19. The compound of claim 14 or 18, wherein Ring A is pyrazolo[1,5-a]pyridine, 1H-pyrrolo[2,3-b]pyridine, pyrrolo[1,2-a]pyrazin-1(2H)-one, pyrazolo[1,5-a]pyrazine, imidazo[1,2-b]pyridazine, pyrazolo[1,5-a]pyrimidine, or 1,3-dihydro-2H-pyrrolo[2,3-b]pyridin-2-one.

20. The compound of claim 14 or 18, wherein Ring A is 5,6,7,8-tetrahydroimidazo[1,2-a]pyrazine, 1,3-dihydro-2H-pyrrolo[2,3-b]pyridin-2-one, or 1,3-dihydro-2H-imidazo[4,5-b]pyridin-2-one.

21. The compound of claim 14 or 18, wherein Ring A is 8H-pyrazolo[1,5-a]pyrrolo[3,2-e]pyrimidine.

22. The compound of claim 14 or 18, wherein Ring A is 7,8,9,10-tetrahydro-pyrazolo[5,1-f][1,6]naphthyridine, or 7,8-dihydro-6H-pyrazolo[1,5-a]pyrrolo[3,2-e]pyrimidine.

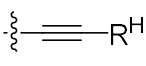
23. A compound of Formula (III):



(III)

or a pharmaceutically acceptable salt thereof:

Ring A is 5-6 membered heteroaryl or 5-6 membered heterocyclyl;

R^1 is –NHC(=O)(C1-C6 alkylene)$_n$$R^A$, phenyl optionally substituted with -NR^FR^G, -Q-R^C, or ;

R^2 is C3-C6 cycloalkyl optionally substituted with –CO_2R^B, 5-10 membered heteroaryloxy, -(C1-C6 alkylene)$_p$-5-10 membered heteroaryl optionally substituted with C1-C6 alkyl, cyano, or 4-6 membered heterocyclyl; -(C1-C6 alkylene)$_t$-phenyl optionally substituted with cyano or -NR^DR^E; 4-6 membered heterocyclyl optionally substituted with C1-C6 alkyl;

R^3 is C1-C6 alkyl;

R^A is 4-6 membered heterocyclyl optionally substituted with C1-C6 alkyl, or 5-10 membered heteroaryl optionally substituted with C1-C6 alkoxy or C1-C6 alkyl,

R^B is hydrogen or C1-C6 alkyl;

R^C is 4-10 membered heterocyclyl, 5-10 membered heteroaryl, or phenyl optionally substituted with –(C1-C6 alkylene)-NR^DR^E;

R^D, R^E, and R^F are independently hydrogen, C1-C6 alkyl, or C3-C6 cycloalkyl;

R^G is hydrogen, C1-C6 alkyl, -C(=O)-C1-C6 alkyl, or -C(=O)-C3-C6 cycloalkyl;

R^H is 4-6 membered heterocyclyl optionally substituted with 1-2 independently selected C1-C6 alkyl;

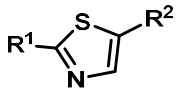
Q is C1-C6 alkylene, NH, or O;

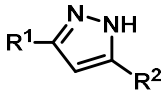
m is 0 or 1;

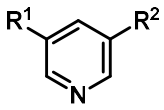
n is 0 or 1;

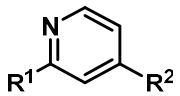
p is 0 or 1; and

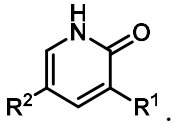
t is 0 or 1.

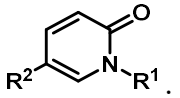
24. The compound of claim 23, wherein Ring A is .

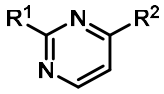
25. The compound of claim 23, wherein Ring A is .

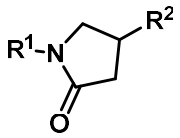
26. The compound of claim 23, wherein Ring A is .

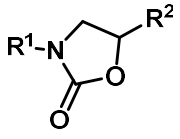
27. The compound of claim 23, wherein Ring A is .

28. The compound of claim 23, wherein Ring A is .

29. The compound of claim 23, wherein Ring A is .

30. The compound of claim 23, wherein Ring A is .

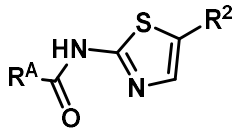
31. The compound of claim 23, wherein Ring A is .

32. The compound of claim 23, wherein Ring A is .

33. The compound of claim 23, wherein the compound selected from a compound in

Table 3, or a pharmaceutically acceptable salt of any of the foregoing.

39. The compound of claim 23, wherein the compound of Formula (III) is a compound of Formula (III-1):



(III-1)

or a pharmaceutically acceptable salt thereof, wherein:

R^2 is -(C1-C6 alkylene)$_p$-5-10 membered heteroaryl optionally substituted with C1-C6 alkyl, cyano, or 4-6 membered heterocyclyl;

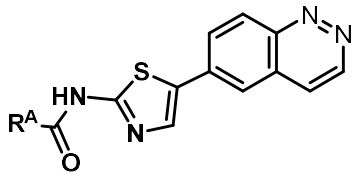
p is 0; and

R^A is 4-6 membered heterocyclyl optionally substituted with C1-C6 alkyl, or 5-10 membered heteroaryl optionally substituted with C1-C6 alkoxy or C1-C6 alkyl.

40. The compound or salt of claim 39, wherein R^2 is a cinnolinyl optionally substituted with C1-C6 alkyl.

41. The compound or salt of claim 39 or 40, wherein R^A is 4-6 membered heterocyclyl optionally substituted with C1-C6 alkyl.

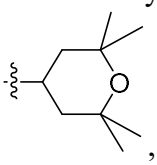
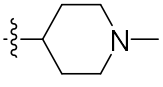
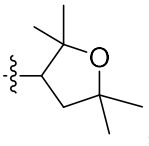
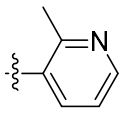
42. The compound of claim 23 or 39, wherein the compound of Formula (III) is a compound of Formula (III-2):



(III-2)

or a pharmaceutically acceptable salt thereof, wherein:

R^A is 4-6 membered heterocyclyl optionally substituted with C1-C6 alkyl, or 5-10 membered heteroaryl optionally substituted with C1-C6 alkoxy or C1-C6 alkyl.

43. The compound of any one of claims 23-32 and 39-42, wherein R^A is selected from the group consisting of: , , , and .

44. The compound of claim 1, wherein the compound selected from a compound in Table 1, or a pharmaceutically acceptable salt of any of the foregoing.

45. The compound of claim 14, wherein the compound selected from a compound in Table 2, or a pharmaceutically acceptable salt of any of the foregoing.

46. A compound selected from a compound in Table 4, or a pharmaceutically acceptable salt of any of the foregoing.

47. A pharmaceutical composition comprising a compound of any one of Claims 1-32 and 39-44, or a pharmaceutically acceptable salt thereof, and pharmaceutically acceptable diluent or carrier.

48. Use of a compound of any one of Claims 1-46, or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition according to Claim 47 in the manufacture of a medicament for treating a neurological disorder in a subject in need thereof.

49. The use of Claim 48, wherein the neurological disorder is selected from the group consisting of Down Syndrome, Alzheimer's disease, and Alzheimer's disease associated with Down Syndrome.

50. The use of Claim 47 or 48, wherein the neurological disorder is selected Alzheimer's disease associated with Down syndrome.

51. A compound of any one of Claims 1-46, or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition according to Claim 47 for use in treating a DYRK1A-associated neurological disorder in a subject, wherein said compound or pharmaceutical acceptable salt or pharmaceutical composition is to be administered to a subject identified or diagnosed as having a DYRK1A-associated neurological disorder.

52. A compound of any one of Claims 1-46, or a pharmaceutically acceptable salt thereof for use in modulating DYRK1A in a mammalian cell.