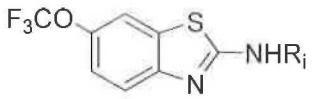
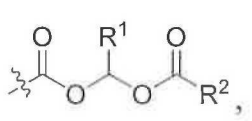
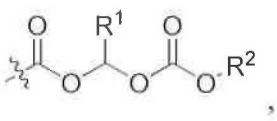
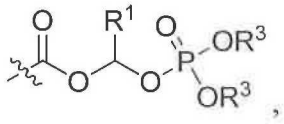
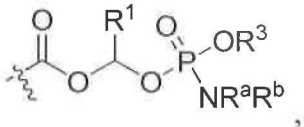
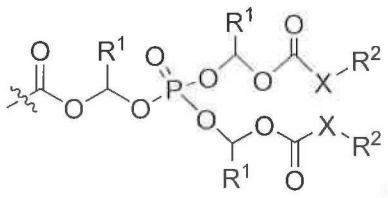
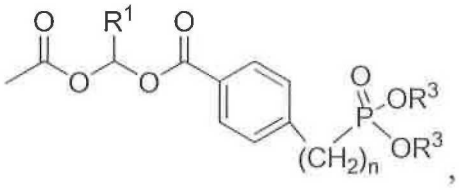
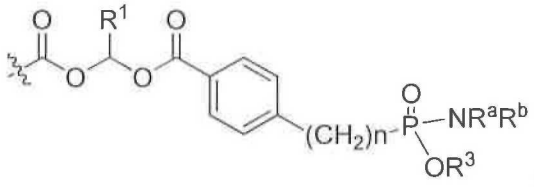
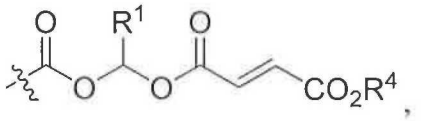
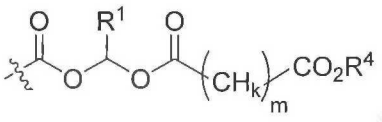
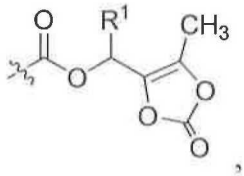
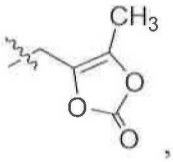
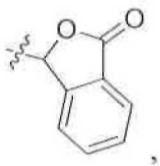
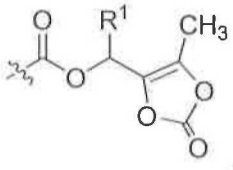
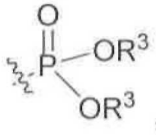
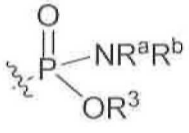
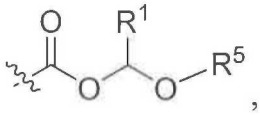
WE CLAIM:

1. A prodrug of riluzole having the following formula:



wherein R_i is selected from:


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and

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where R^1 is H, alkyl or particularly C_1-C_8 alkyl;

R^2 is alkyl, cycloalkyl, aryl, or heteroaryl, or halo alkyl, which is substituted or unsubstituted,

R^3 is H, metal, R^2 or a substituted or unsubstituted primary, secondary or tertiary amine;

R^4 is H, metal, ammonium salt or alkyl;

R^5 is a substituted or unsubstituted natural amino acid;

R^a or R^b is H, alkyl or aryl; or NR^a or NR^b is an amino acid;

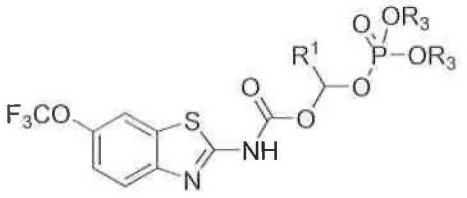
X is C or O;

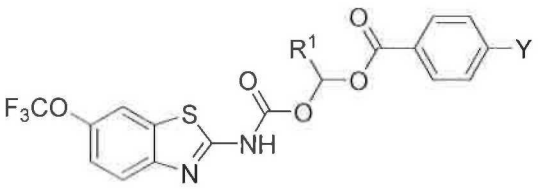
k is 1 or 2, m is 2-22, or $(CH_k)_m$ is saturated, unsaturated or conjugated hydrocarbon;

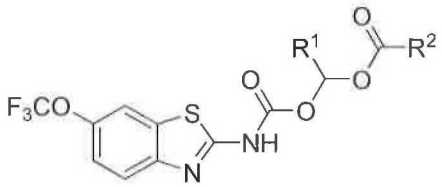
n is 0 – 2; and

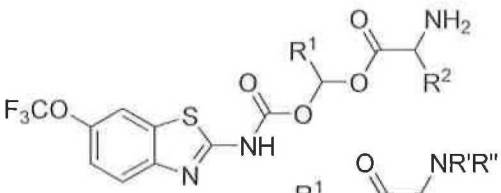
the metal is Na, K, Li, Ca, Mg, Ag or Zn.

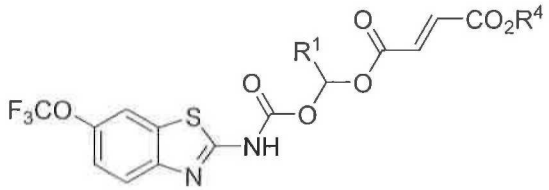
2. The prodrug of claim 1 selected from:

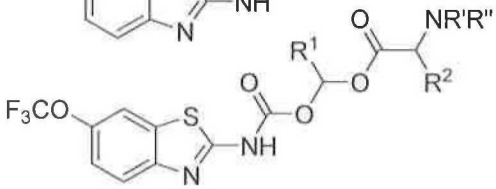


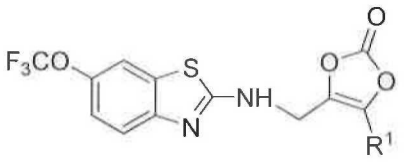


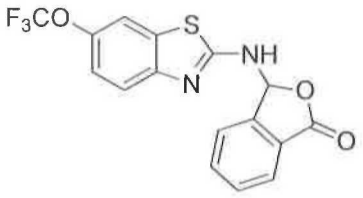




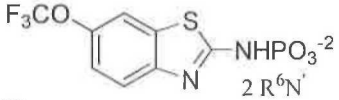


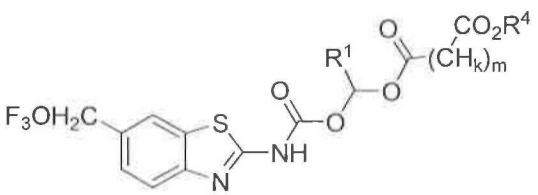






or





where R^1 is H, alkyl or particularly C_1-C_8 alkyl;

R^2 is alkyl, cycloalkyl, aryl, or heteroaryl, or halo alkyl, which is substituted or unsubstituted;

R^3 is H, metal, R^2 or a substituted or unsubstituted primary, secondary or tertiary amine;

R^4 is H, metal, ammonium salt or alkyl;

R^5 is a substituted or unsubstituted natural amino acid;

R^6 is alkyl, cycloalkyl, aryl, or heteroaryl, or halo alkyl;

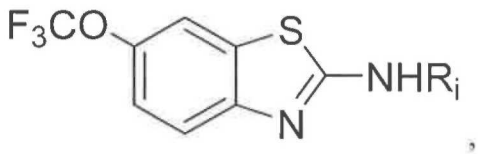
k is 1 or 2, m is 2-22, or $(CH_k)_m$ is saturated, unsaturated or conjugated hydrocarbon;

N' is a primary, secondary and tertiary amine which is substituted or unsubstituted, or metal salts;

Y is PO_3H, CH_2PO_3H or salt thereof; and

the metal is Na, K, Li, Ca, Mg, Ag or Zn.

3. A method of preparing a riluzole prodrug, comprising a step of coupling one or more prodrug appendage moieties to a riluzole molecule



where R^1 is H, alkyl or particularly C_1-C_8 alkyl;

R^2 is alkyl, cycloalkyl, aryl, or heteroaryl, or halo alkyl, which is substituted or unsubstituted,

R^3 is H, metal, R^2 or a substituted or unsubstituted primary, secondary or tertiary amine;

R^4 is H, metal, ammonium salt or alkyl;

R^5 is a substituted or unsubstituted natural amino acid;

R^a or R^b is H, alkyl or aryl; or NR^a or NR^b is an amino acid;

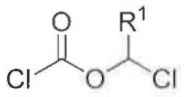
X is C or O;

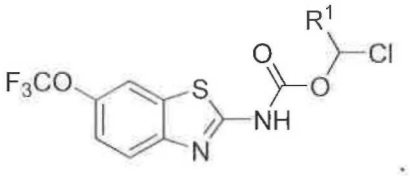
k is 1 or 2, m is 2-22, or $(CH_k)_m$ is saturated, unsaturated or conjugated hydrocarbon;

n is 0 – 2; and

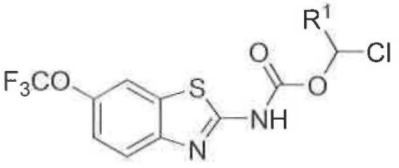
the metal is Na, K, Li, Ca, Mg, Ag or Zn.

4. A method of synthesizing a riluzole prodrug, comprising a step of reacting riluzole with

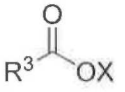
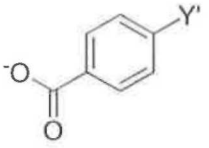
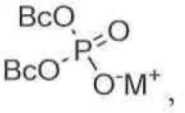
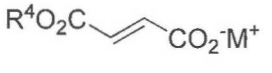
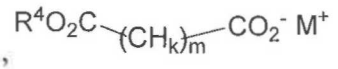
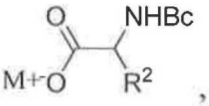
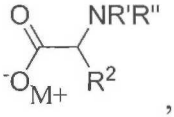


to produce .

5. The method of claim 4, further comprising a step of reacting



with a compound selected from:

and

wherein R^1 is H, alkyl or particularly C_1-C_8 alkyl;

R^2 is alkyl, cycloalkyl, aryl, or heteroaryl, or halo alkyl, which is substituted or unsubstituted;

R^4 is H, metal, ammonium salt, or alkyl,

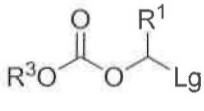
k is 1 or 2, m is 2-22, or $(CH_k)_m$ is saturated, unsaturated or conjugated hydrocarbon;

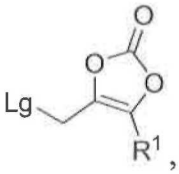
Bc is a protecting group;

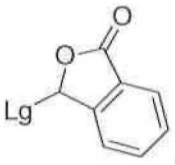
Y'is H, PO_3Bc_2, CH_2PO_2Bc, MPO_3Bc or salt thereof, or $N(R_a)_4^+$, where Ra is H or alkyl;

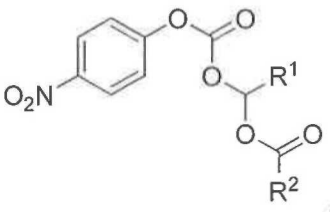
M is Na, K, Li, Mg, Ca, Ag or Zn; and

R' or R" are cyclic or acyclic alkyl.

6. A method of synthesizing a riluzole prodrug, comprising a step of reacting a riluzole, with CO_2, Cs_2CO_3 and reacting the resulting compound with , wherein Lg is a leaving group.

7. A method of synthesizing a riluzole prodrug, comprising a step of reacting a riluzole with , wherein Lg is a leaving group and where R^1 is H, or C_1-C_8 alkyl.

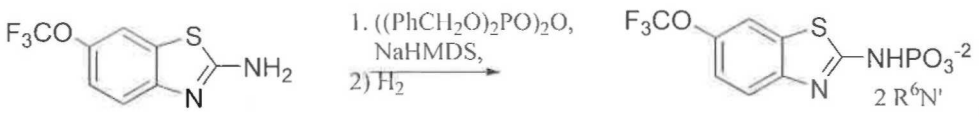
8. A method of synthesizing a riluzole prodrug, comprising a step of reacting a riluzole with , wherein Lg is a leaving group.

9. A method of synthesizing a riluzole prodrug, comprising a step of reacting riluzole with ,

wherein R^1 is H, alkyl or particularly C_1-C_8 alkyl; and

R^2 is alkyl, cycloalkyl, aryl, or heteroaryl, or halo alkyl, which is substituted or unsubstituted.

10. A method of synthesizing a riluzole prodrug, comprising a step of reacting riluzole with $((PhCH_2O)_2PO)_2O$ and sodium bis(trimethylsilyl)amide (NaHMDS) and subsequently reacting the resulting compound with hydrogen:



wherein R^6 is alkyl, cycloalkyl, aryl, or heteroaryl, or halo alkyl; N' is a primary, secondary and tertiary amine which is substituted or unsubstituted, or metal salts.