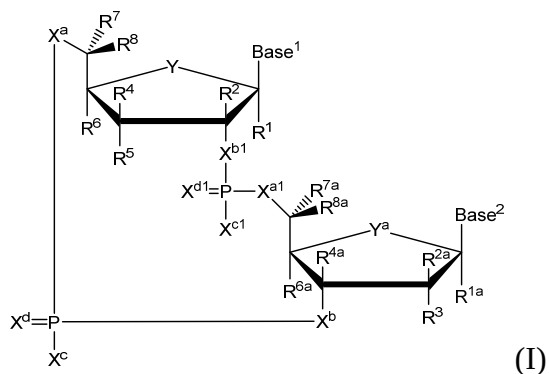


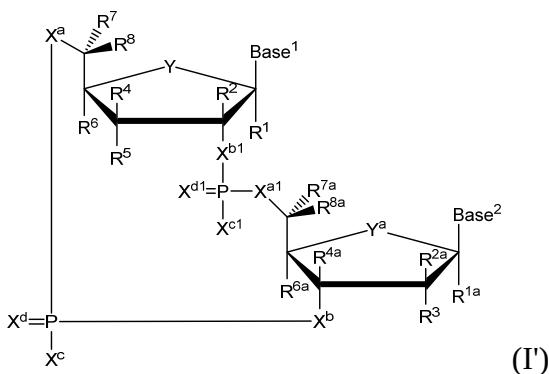
SUMMARY

The present disclosure relates to novel cyclic di-nucleotide compounds of general formula (I), general formula (I'), and/or general formula (I''). In particular, the present disclosure relates to compounds having the general structural formula (I):



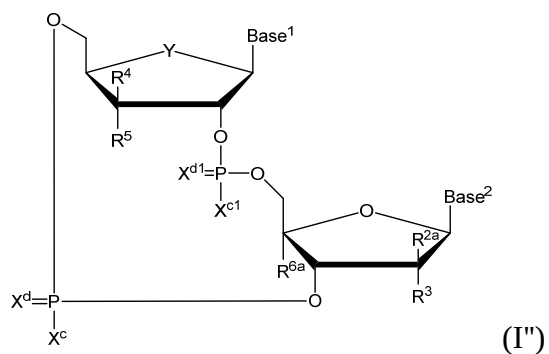
or pharmaceutically acceptable salts, hydrates, solvates, or prodrugs thereof, as described herein.

The present disclosure also relates to compounds having general structural formula (I'):



or pharmaceutically acceptable salts, hydrates, solvates, or prodrugs thereof, as described herein.

10 The present disclosure also relates to compounds having general structural formula (I''):

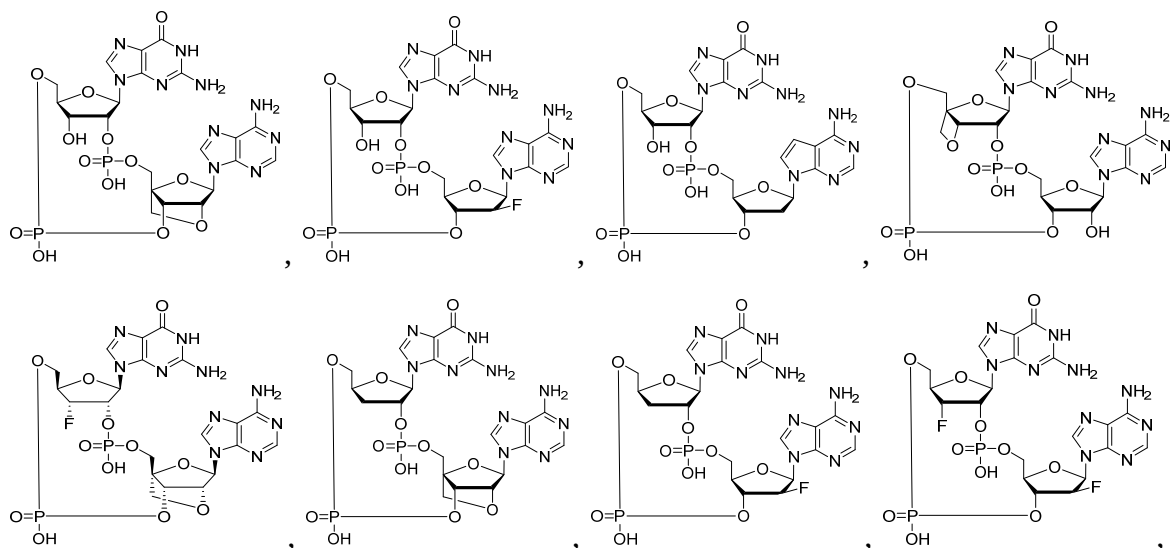


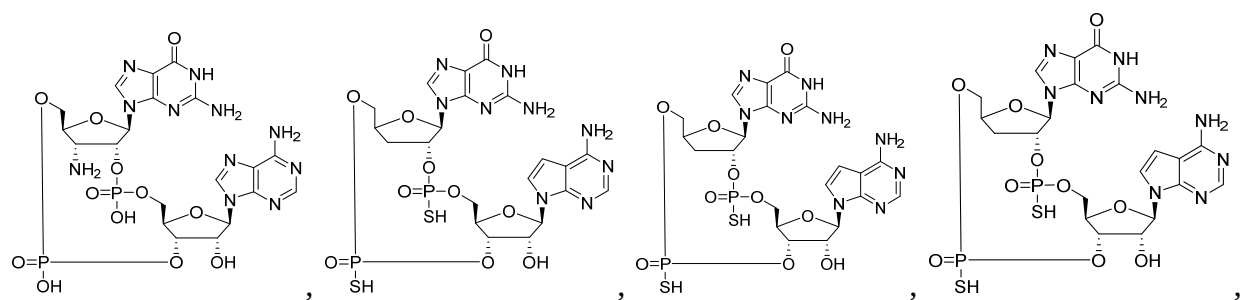
or pharmaceutically acceptable salts, hydrates, solvates, or prodrugs thereof, as described herein.

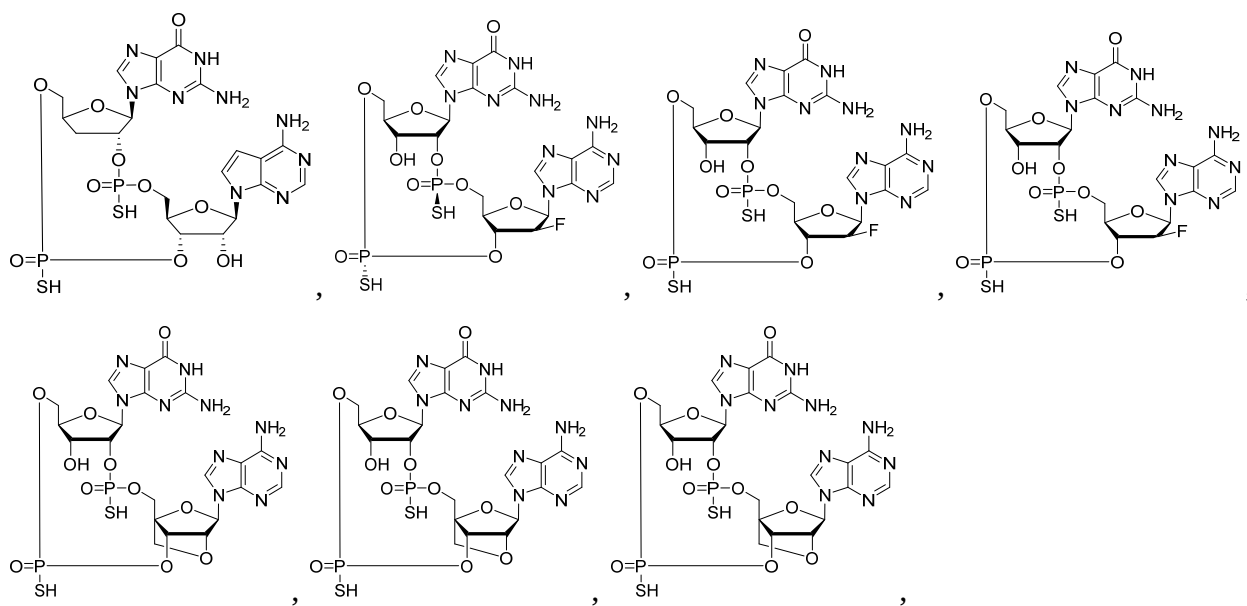
Embodiments of the disclosure include compounds of general formula (I), compounds of general formula (I'), and/or compounds of general formula (I''), and pharmaceutically acceptable salts, hydrates, solvates, or prodrugs thereof, as well as synthesis and isolation of compounds of

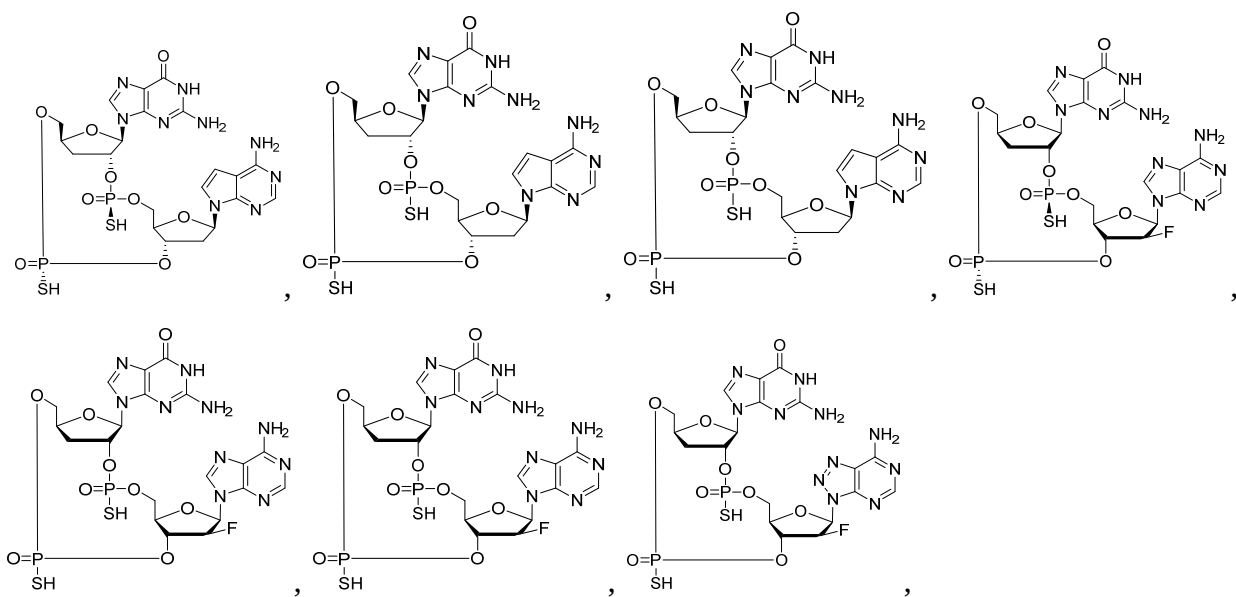
general formula (I), compounds of general formula (I'), and/or compounds of general formula (I''), and pharmaceutically acceptable salts, hydrates, solvates, or prodrugs thereof. Uses of compounds of general formula (I), compounds of general formula (I'), and/or compounds of general formula (I'') are also disclosed.

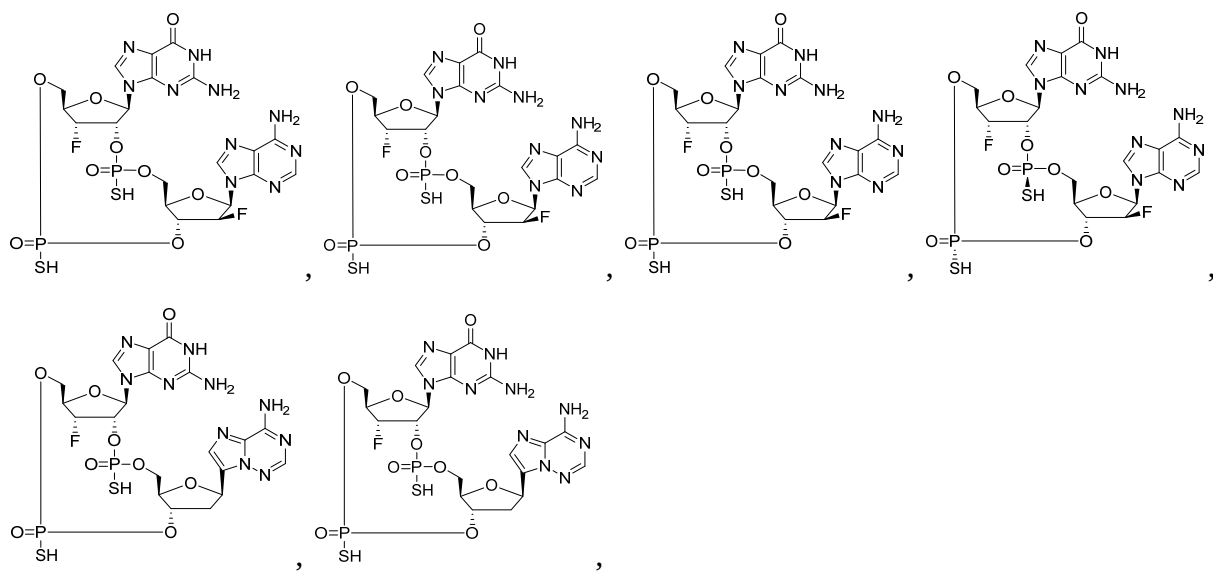
5 In one aspect, there is provided a compound selected from the group consisting of:

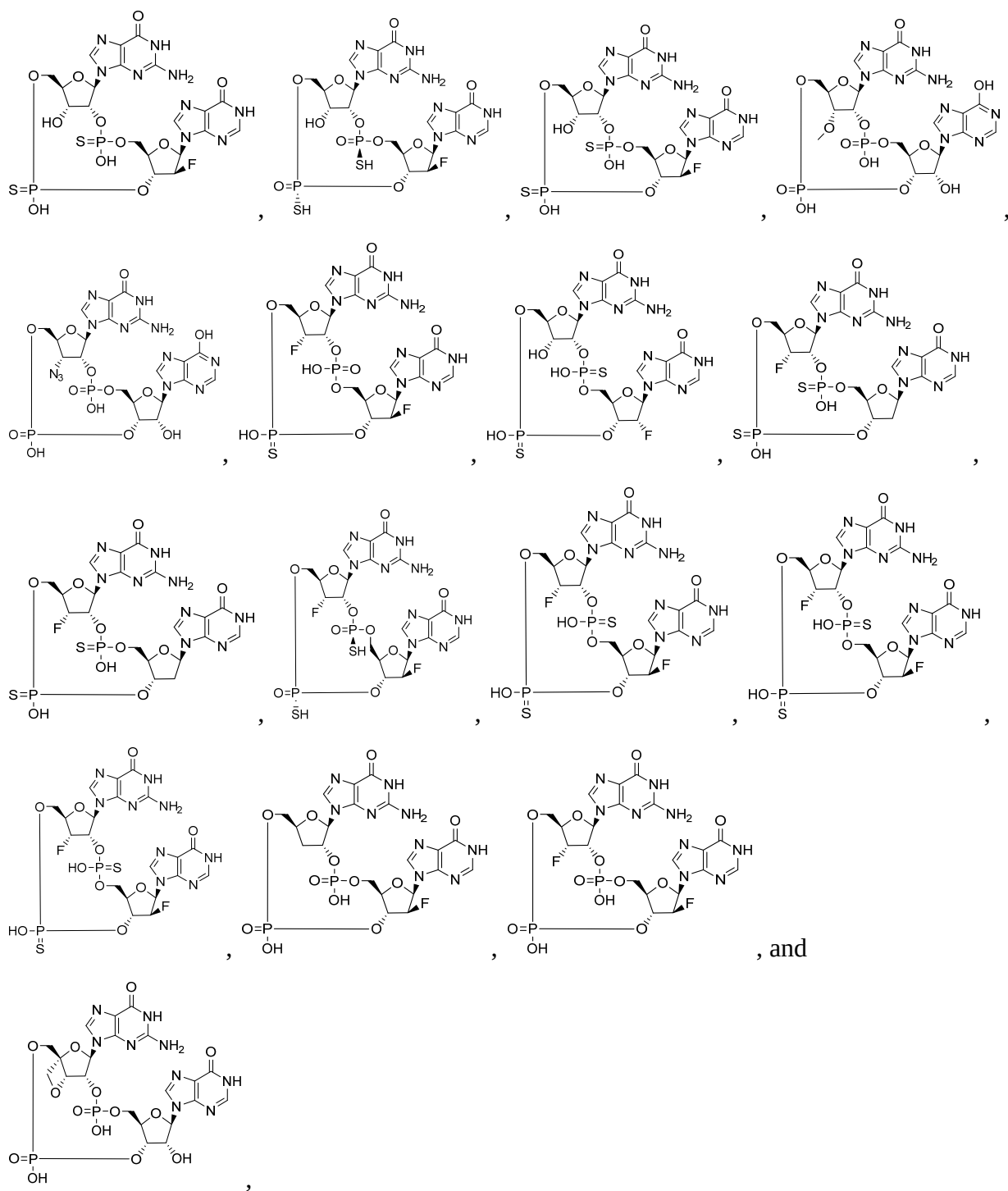












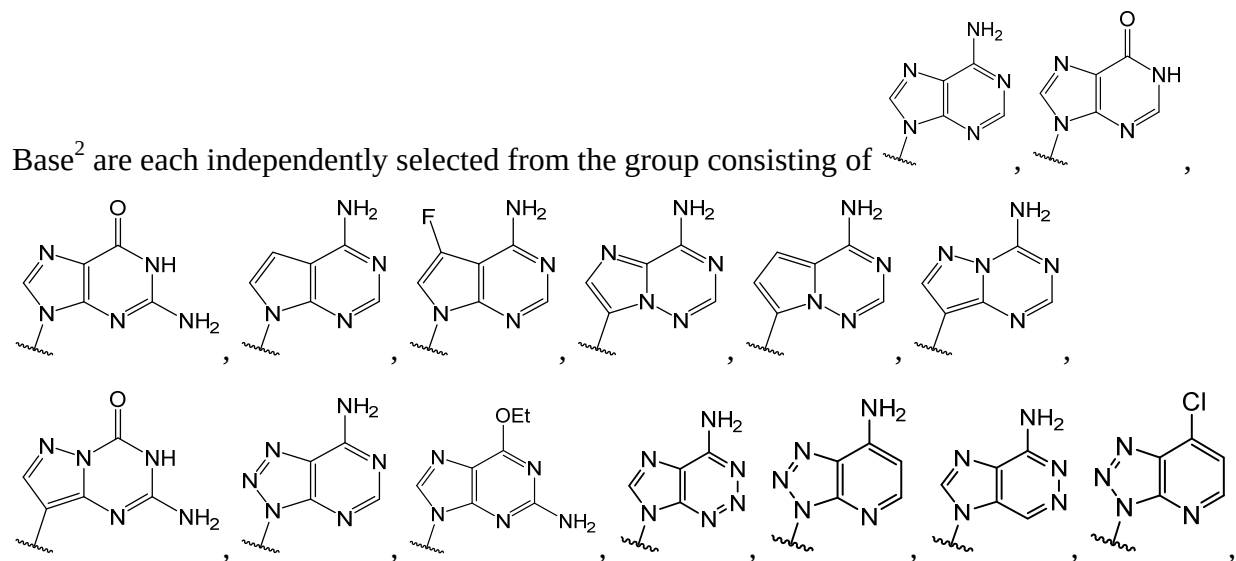
In another aspect, there is provided a pharmaceutical composition for use in inducing an immune response in a subject, said pharmaceutical composition comprising: (a) a compound as defined herein or a pharmaceutically acceptable salt thereof; and (b) a pharmaceutically acceptable carrier.

DETAILED DESCRIPTION OF THE INVENTION

A first embodiment of the disclosure relates to cyclic di-nucleotide compounds of general formula (I):

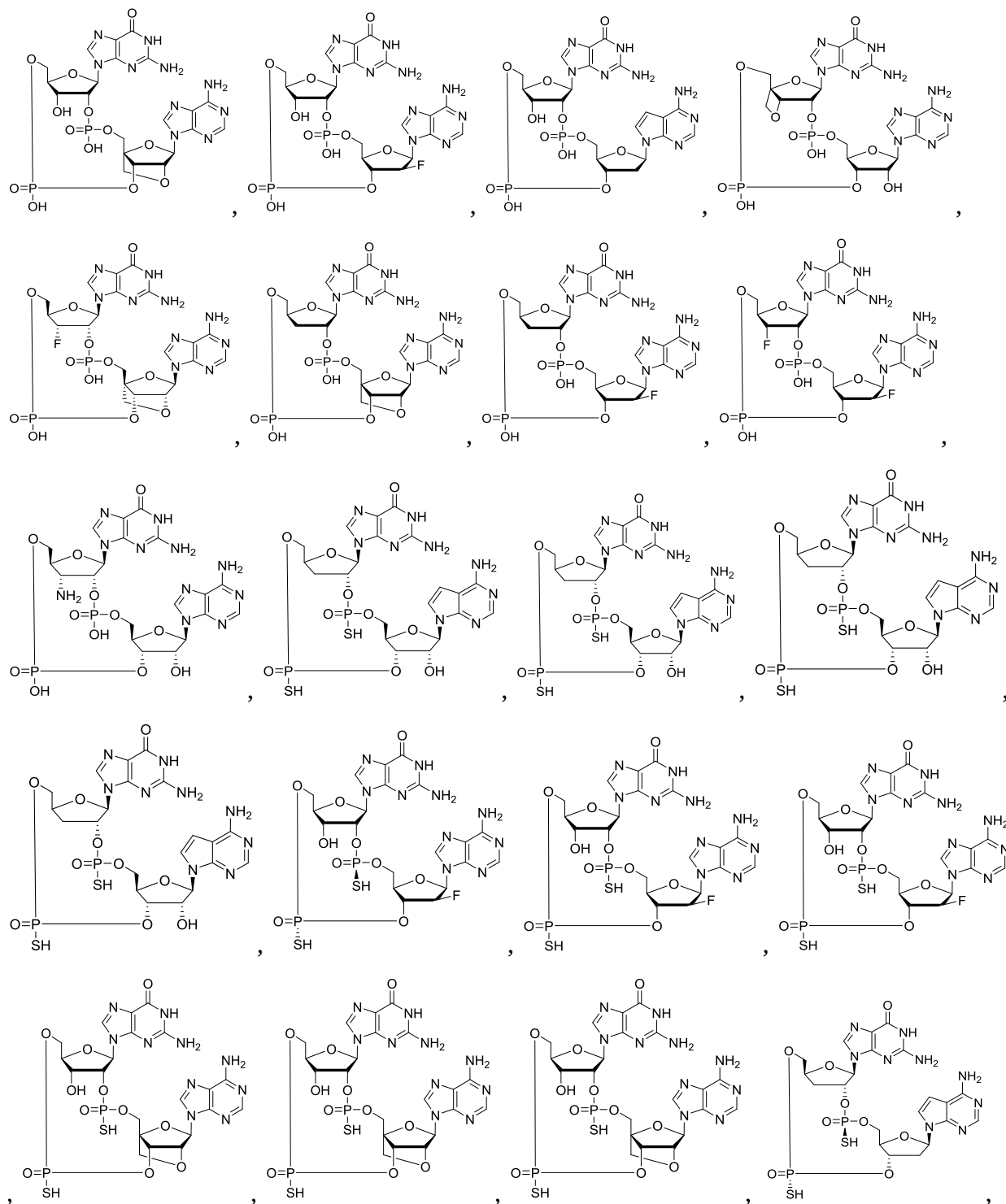


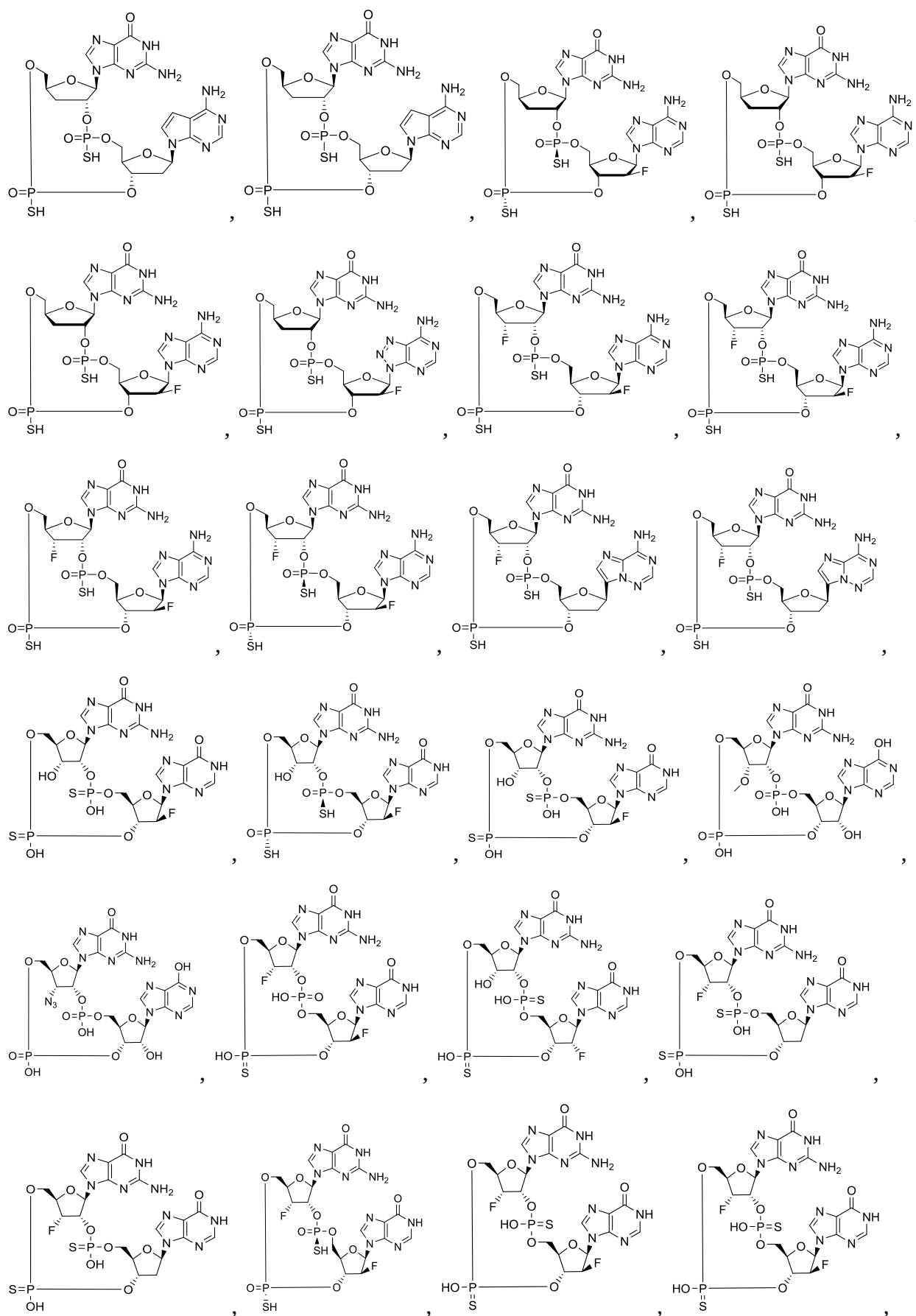
or a pharmaceutically acceptable salt, hydrate, solvate, or prodrug thereof, wherein Base¹ and

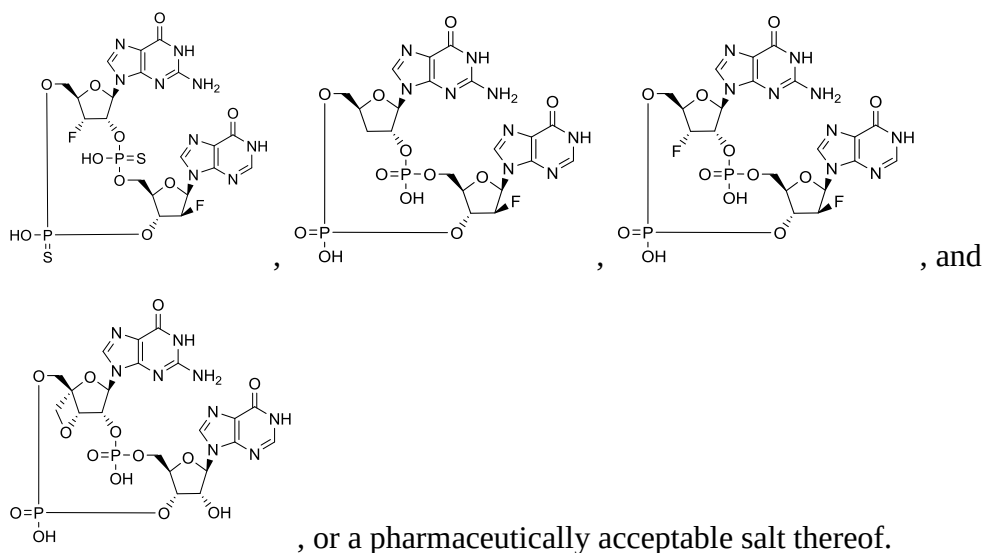


WHAT IS CLAIMED IS:

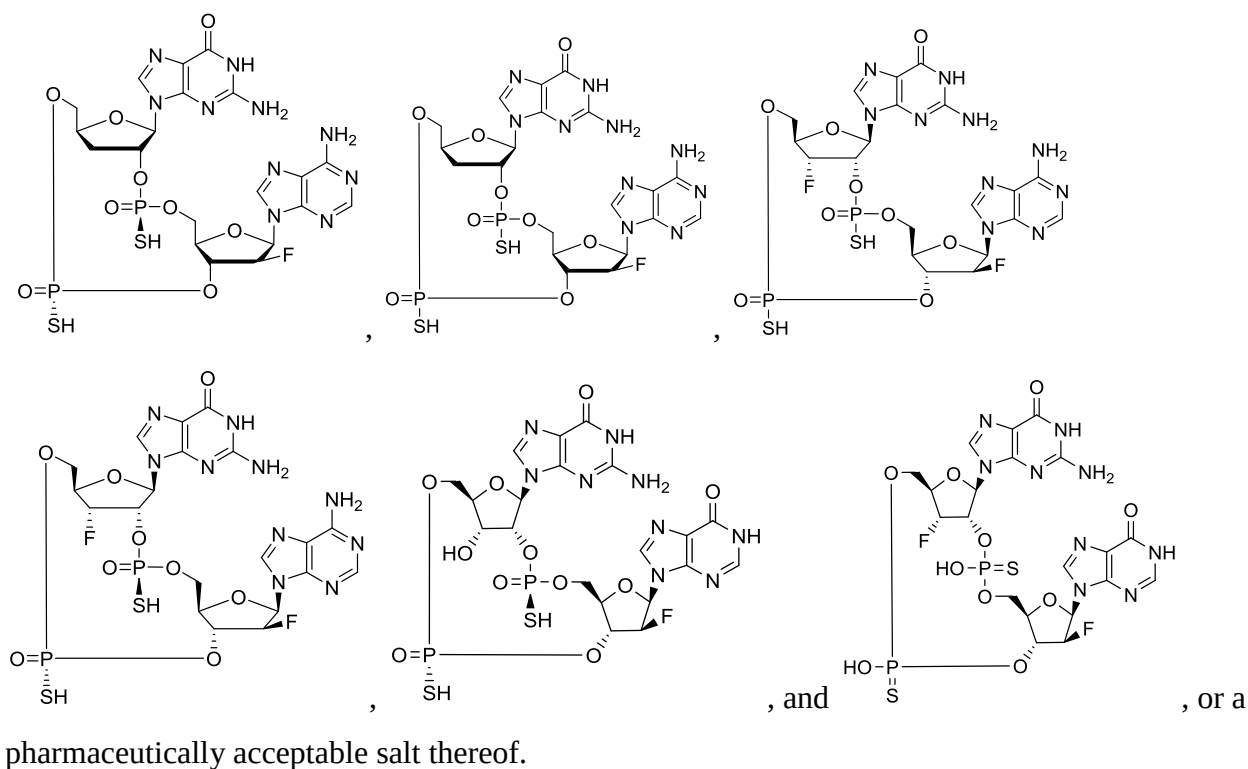
1. A compound selected from the group consisting of:



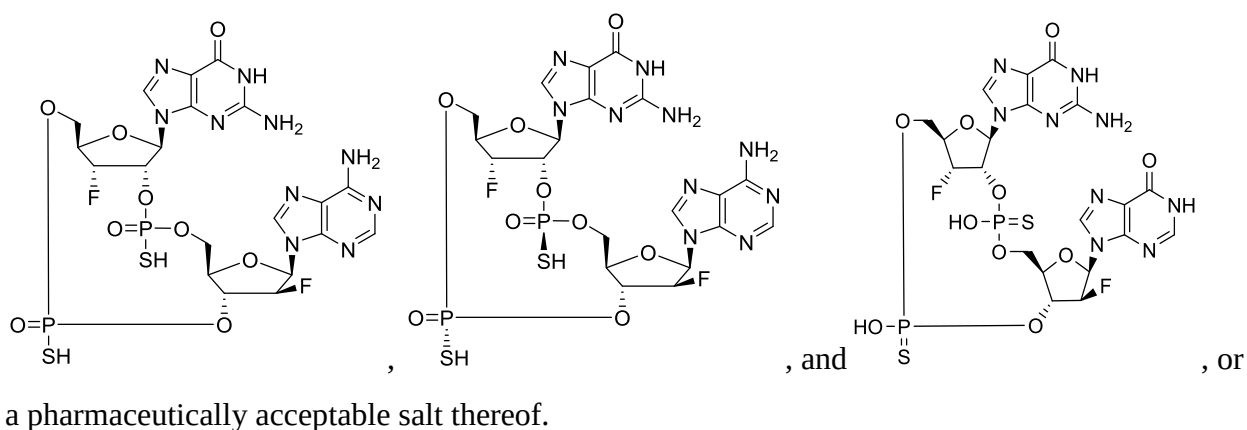




2. The compound according to claim 1, wherein the compound is selected from the group consisting of:



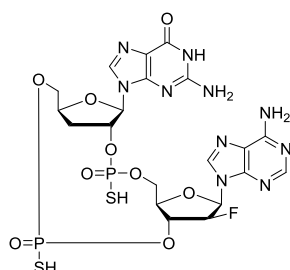
3. The compound according to claim 1, wherein the compound is selected from the group consisting of:



4. A pharmaceutical composition for use in inducing an immune response in a subject, said pharmaceutical composition comprising:

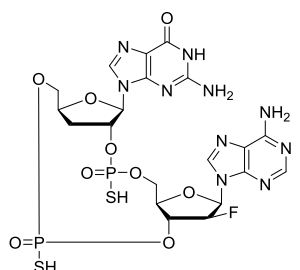
- (a) a compound according to any one of claims 1 to 3 or a pharmaceutically acceptable salt thereof; and
- (b) a pharmaceutically acceptable carrier.

5. A compound of claim 1, wherein the compound is selected from the group consisting of

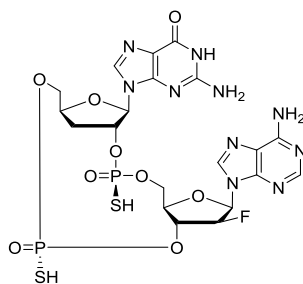


and pharmaceutically acceptable salts thereof.

6. The compound according to claim 5, wherein the compound is a pharmaceutically acceptable salt of

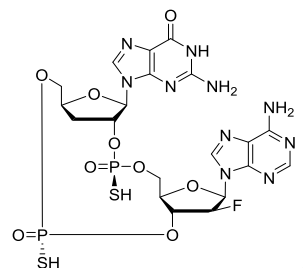


7. The compound according to claim 5, wherein the compound is selected from the group consisting of

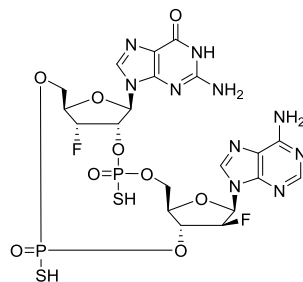


and pharmaceutically acceptable salts thereof.

8. The compound according to claim 7, wherein the compound is a pharmaceutically acceptable salt of

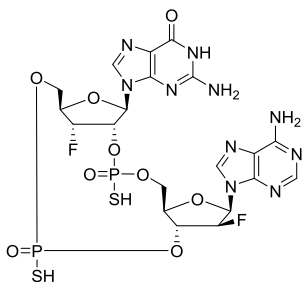


9. A compound of claim 1, wherein the compound is selected from the group consisting of

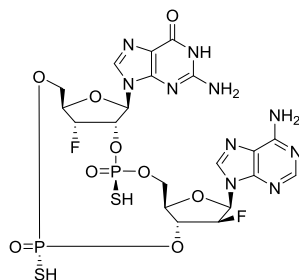


and pharmaceutically acceptable salts thereof.

10. The compound according to claim 9, wherein the compound is a pharmaceutically acceptable salt of

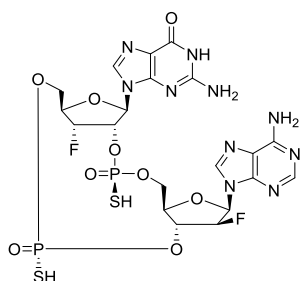


11. The compound according to claim 9, wherein the compound is selected from the group consisting of

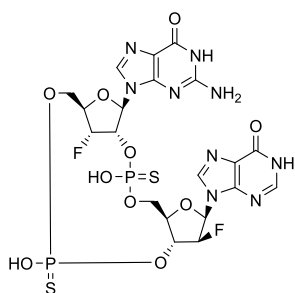


and pharmaceutically acceptable salts thereof.

12. The compound according to claim 9, wherein the compound is a pharmaceutically acceptable salt of

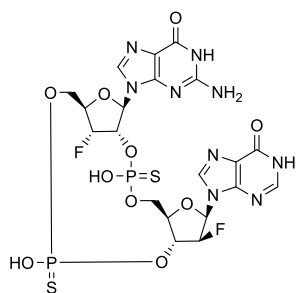


13. A compound of claim 1, wherein the compound is selected from the group consisting of

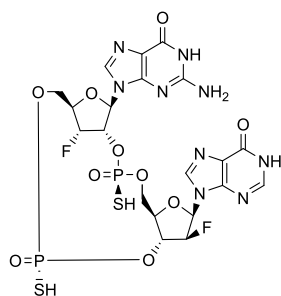


and pharmaceutically acceptable salts thereof.

14. The compound according to claim 13, wherein the compound is a pharmaceutically acceptable salt of



15. A compound of claim 1, wherein the compound is selected from the group consisting of



and pharmaceutically acceptable salts thereof.

16. The compound according to claim 15, wherein the compound is a pharmaceutically acceptable salt of

