Claims

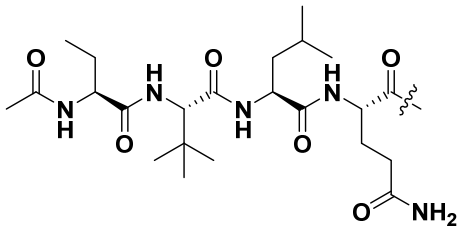
1. A compound of formula I:

$$A\text{-}[B]_n\text{-}C \qquad I$$

wherein:

A represents a peptide sequence according to (i) or (ii):

(i) fragment DD that targets SARS-CoV-2 main protease:



DD

where the wavy line represents the point of attachment to the rest of the molecule; or

(ii) fragment D that targets a flavivirus protease:

$$PG\text{-}[P_4]_p\text{-}[P_3]_o\text{-}P_2\text{-}P_1\text{-} \qquad D$$

where:

P_1 to P_4, when present, are amino acids that together form an oligo peptide;

o is 0 or 1;

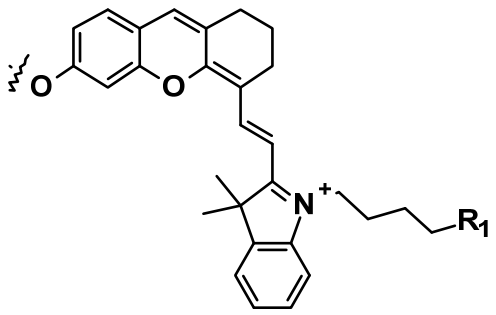
p is 0 or 1; and

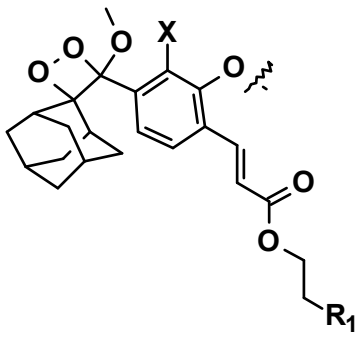
PG is a protecting group;

B, when present, represents a self-immolative linking group;

C represents a fluorophore or chemilumiphore group covalently linked to the rest of the molecule by an oxygen atom or a NH group according to (iii) or (iv):

(iii) when A represents the peptide sequence according to (ii), C is selected from:



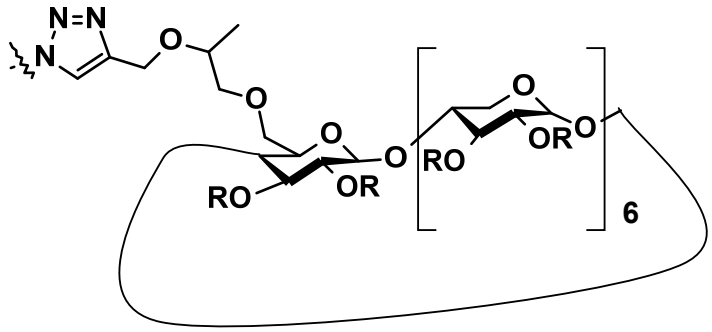
or


where:

the wiggly line represents the point of attachment to the rest of the molecule;

X represents H or halo (e.g. Cl); and

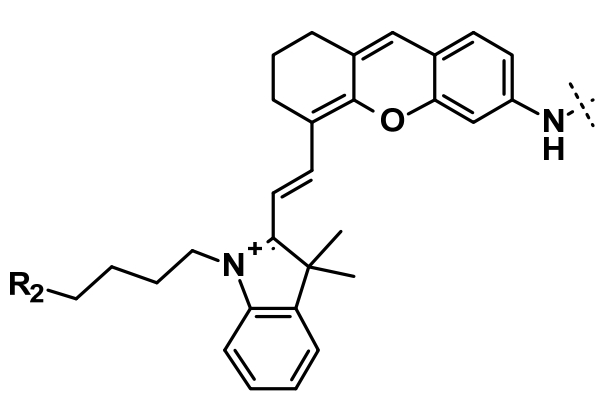
R_1 represents:

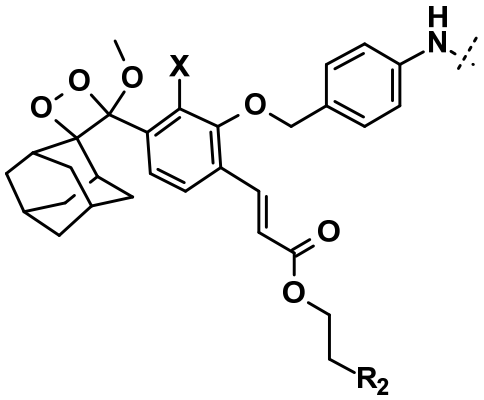


, where:

the wiggly line represents the point of attachment to the rest of the molecule; and R represents H or 2-hydroxylpropyl;

(iv) when A represents the peptide sequence according to (i), C is selected from:





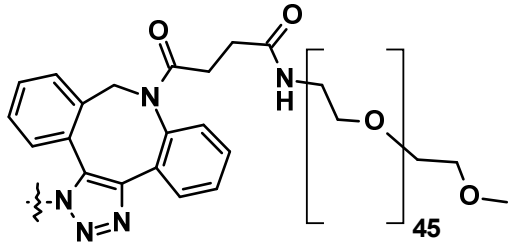
or

where:

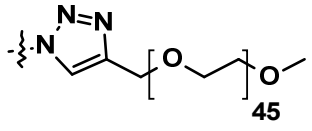
the dotted line represents the point of attachment to the rest of the molecule;

X represents H or halo (e.g. Cl); and

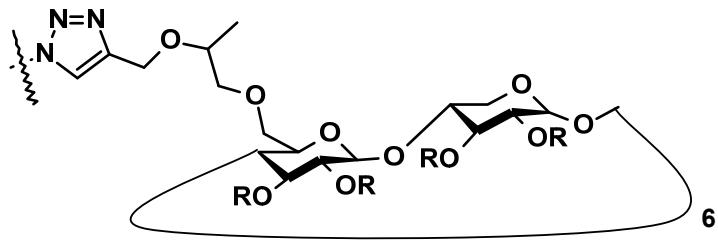
R_2 is selected from:



or, more particularly,



or



6, where:

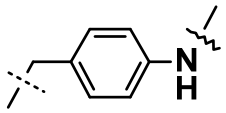
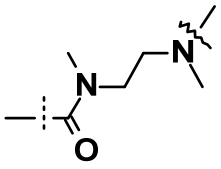
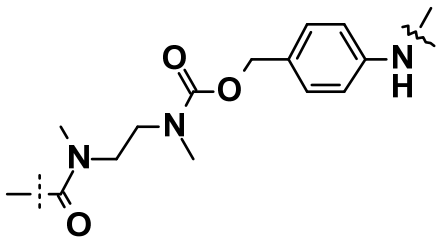
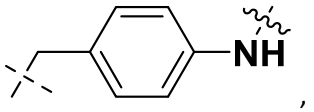
the wiggly line represents the point of attachment to the rest of the molecule; and

R represents H or 2-hydroxylpropyl; and

n represents 0 or 1,

or a pharmaceutically acceptable salt or solvate thereof.

2. The compound according to Claim 1, or a pharmaceutically acceptable salt or solvate thereof, wherein B, when present is selected from:

 ; or more particularly	 ;
 ; and	 ,

where the wavy line represents the point of attachment to A and the dotted line represents the point of attachment to C.

3. The compound according to Claim 1 or 2, or a pharmaceutically acceptable salt or solvate thereof, wherein PG is selected from a benzoyl protecting group, an acetyl protecting group or a *tert*-butyloxycarbonyl protecting group.

4. The compound according to any one of Claims 1 to 3, or a pharmaceutically acceptable salt or solvate thereof, wherein fragment D is selected from the list of:

(a) Bz-Nle-Lys-Arg-Arg-;

(b) Bz-Nle-Lys-Arg-Ala-;

(c) Bz-Nle-Lys-Thr-Arg-;

(d) Bz-Nle-Thr-Arg-Arg-;

(e) Bz-Nle-Ala-Arg-Arg-;

(f) Bz-Nle-Lys-Arg-Phe-;

(g) Bz-Nle-Lys-Phe-Arg-;

(h) Bz-Nle-Phe-Arg-Arg-;

(i) Bz-Thr-Lys-Arg-Arg-;

(j) Bz-Thr-Thr-Arg-Arg-;

(k) Bz-Phe-Lys-Arg-Arg-;

(l) Bz-Ala-Lys-Arg-Arg-;

(m) Bz-Nle-Lys-Lys-Arg-;

(n) Bz-Lys-Arg-Arg-;

(o) Bz-Arg-Arg-;

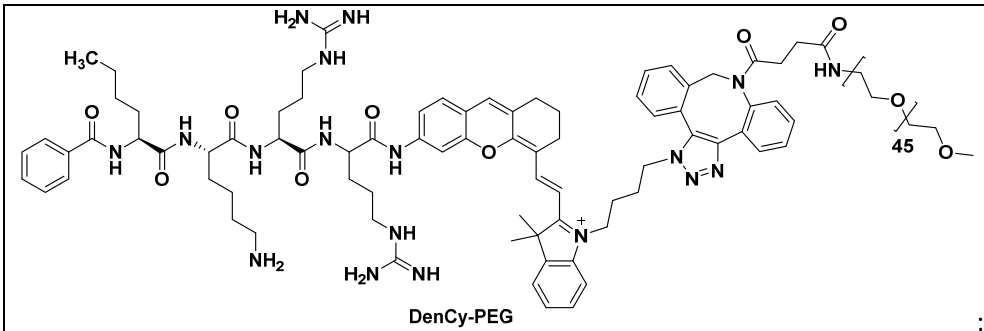
(p) Ac-Nle-Lys-Arg-Arg-;

(q) Ac-Lys-Arg-Arg-;

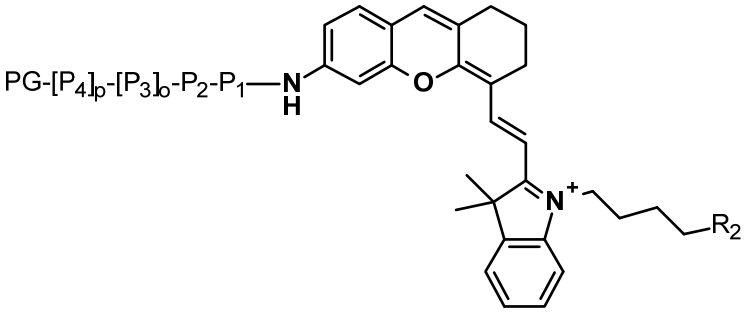
(r) Boc-Gly-Arg-Arg-; and

(s) Boc-Lys-Arg-Arg-.

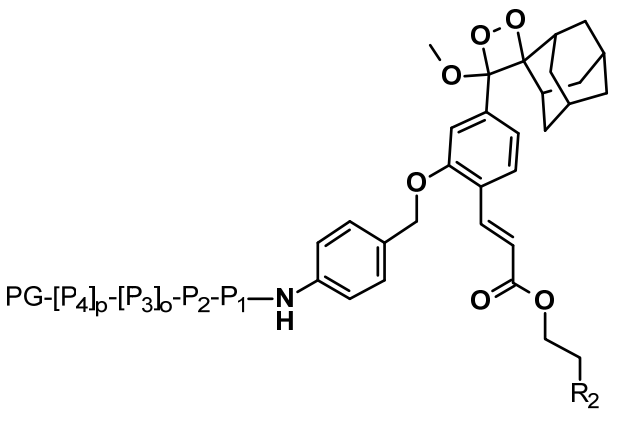
5. The compound according to any one of Claims 1 to 4 , or a pharmaceutically acceptable salt or solvate thereof, wherein the compound of formula I is selected from:



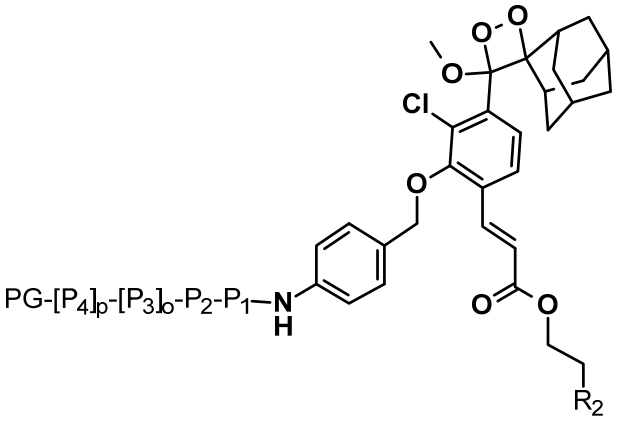
;



;

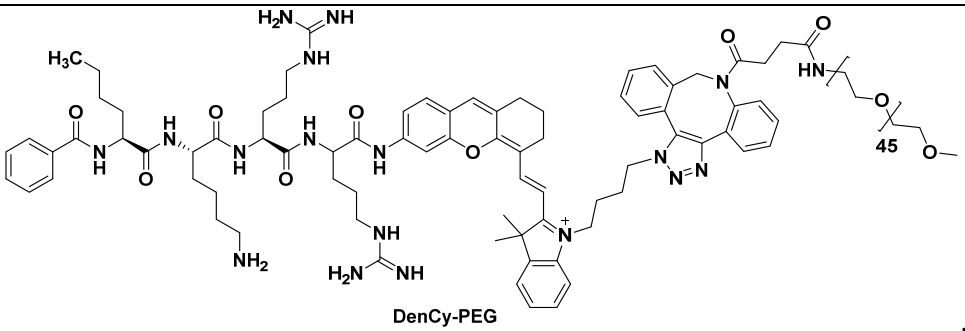


; or



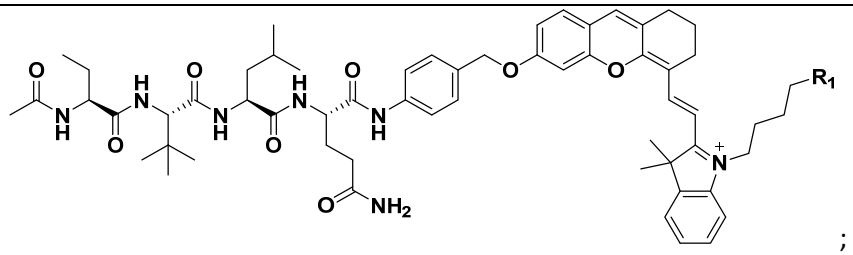
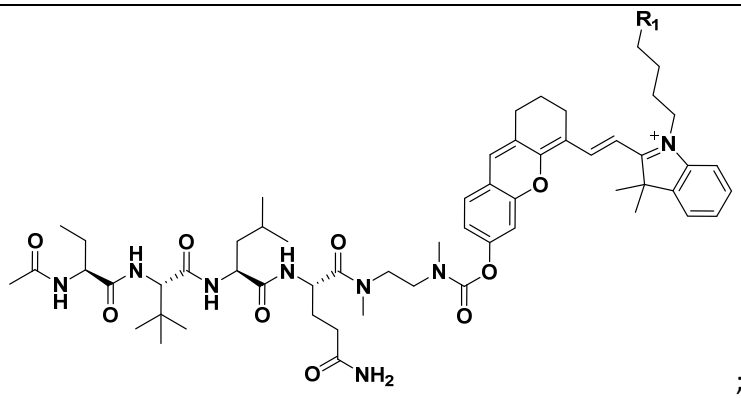
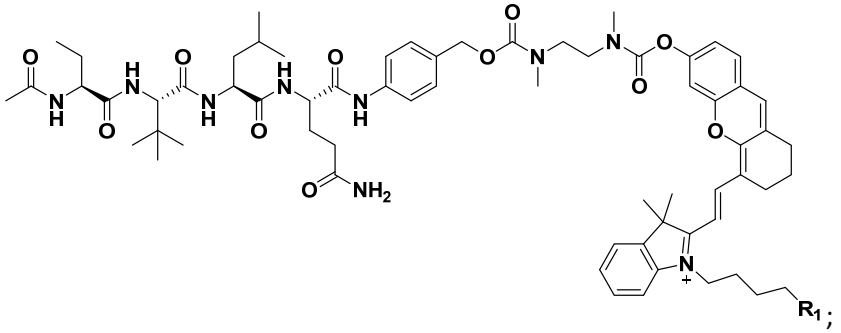
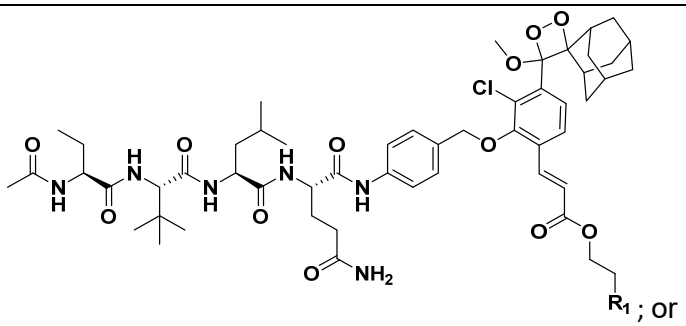
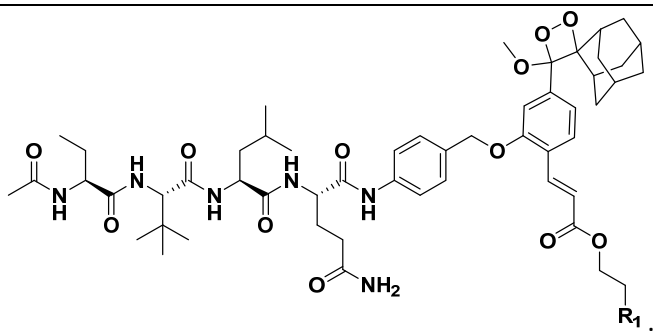
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6. The compound according to Claim 5, or a pharmaceutically acceptable salt or solvate thereof, wherein the compound of formula I is:

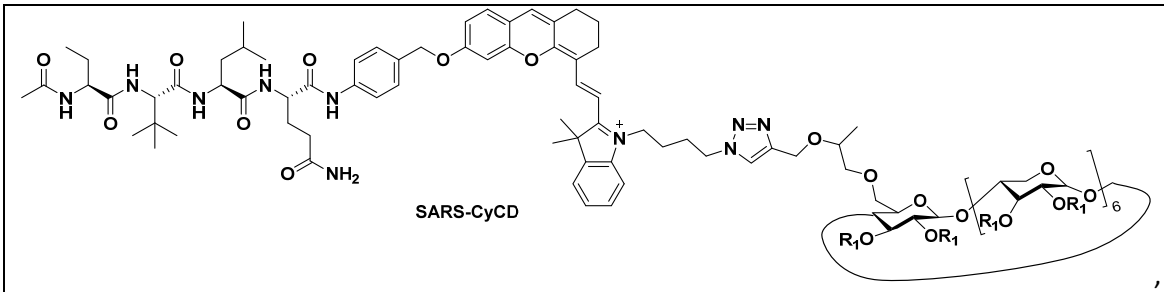


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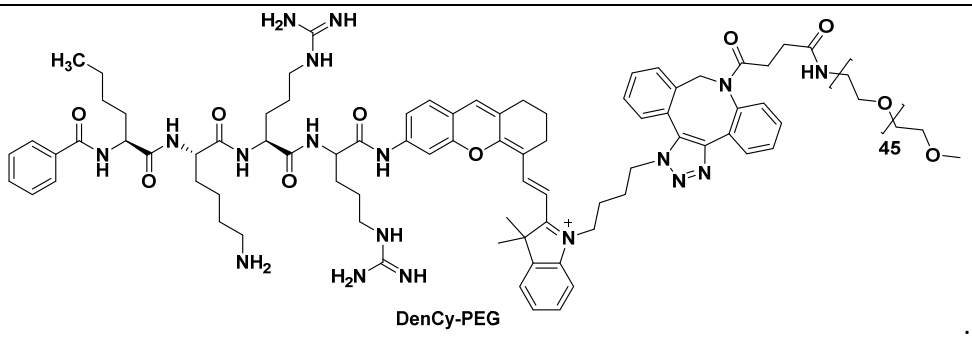
7. The compound according to Claim 1, or a pharmaceutically acceptable salt or solvate thereof, wherein the compound of formula I is selected from:

A	 ;
B	 ;
C	 ;
D	 ; or
E	 .

8. The compound according to Claim 1, or a pharmaceutically acceptable salt or solvate thereof, wherein the compound of formula I is selected from:



where R_1 represents H or 2-hydroxylpropyl; or



9. A method for detection of a viral protease in an analyte, the method comprising the following steps:

(a) providing an analyte and a fluid comprising a compound of formula I, or a pharmaceutically acceptable salt or solvate thereof, according to any one of Claims 1 to 8;

(b) contacting the analyte with the fluid comprising a compound of formula I, or pharmaceutically acceptable salt or solvate thereof, for a period of time; and

(c) after the period of time detecting any near-infrared fluorescence (NIRF) or chemiluminescence, wherein the presence of the viral protease in the fluid comprising the analyte and the compound of formula I, or pharmaceutically acceptable salt or solvate thereof, is indicated by near-infrared fluorescence (NIRF) or chemiluminescence.

10. Use of a compound of formula I or a salt and/or solvate thereof according to any one of Claims 1 to 8 in the manufacture of a diagnostic agent for *in vivo* diagnosis of a disease caused by a virus.

11. A compound of formula I or a salt and/or solvate thereof according to any one of Claims 1 to 8 for use in the *in vivo* diagnosis of a disease caused by a virus.

12. A composition comprising a compound of formula I, or a pharmaceutically acceptable salt or solvate thereof, according to any one of Claims 1 to 8 in admixture with one or more of a pharmaceutically acceptable adjuvant, diluent and carrier.