

## CLAIMS

1. Medicament dispenser (1) for delivering a medicament (9, 53) to a user (2), the medical dispenser (1) comprising:
  - One or more internal storages (3, 52) for storing one or more medicaments (9, 53);
  - a dispensing unit (10, 101) configured to access said one or more internal storages (3, 52) and dispense the medicament (9; 53) based on a predefined dispensing protocol (18);
  - a control unit (13) comprising a user recognition unit (12, 19, 54), adapted to collect user authentication data (76), and a communication module (14) configured to send/receive said user authentication data (76) and a delivery control data (16) associated to said predefined dispensing protocol (18) to/from a remote server (15), wherein said control unit (13) is configured to enable/disable said dispensing unit (10, 101) based on said user authentication data (76) and said delivery control data (16);
  - a destruction system (45) of the one ore more medicaments (9, 53), characterized in that said destruction system (45) comprises a reservoir (47) disposed within the internal storage (3, 52), said reservoir (47) having frangible walls (48) and containing a medicament-neutralizing agent (49).
2. Medicament dispenser (1) according to the preceding claim, wherein said communication module (14) is configured to send/receive said delivery control data (16) and user authentication data (76) to/from the remote server (15) through wireless means.
3. Medicament dispenser (1) according claims 1 or 2, wherein said control unit (13) is further configured to collect health data (17) associated to the user (2).
4. Medicament dispenser (1) according to the preceding claim, wherein said communication module (14) is further configured to send/receive said health data (17) to/from the remote server (15), said delivery control data (16) being adjusted based on said user health data (17).

5. Medicament dispenser (1) according to the preceding claim, wherein said communication module (14) is configured such to send/receive said health data (17) through wireless means.
6. Medicament dispenser (1) according any of claims 3-5, comprising a camera (19) for detecting user's visual data (20) associated to user's physical characteristics, said control unit (13) being configured to process said visual data (20) such to obtain said health data (17).
7. Medicament dispenser (1) according to any of claims 3 to 6, wherein said control unit (13) is configured to receive/send health data (17) associated to the user (2) from/to an auxiliary external device (21).
8. Medicament dispenser (1) according to any of the preceding claims, wherein said internal storage (3) is an elongate compartment (3) having a top end (5) and a bottom end (6), said elongate compartment (3) being adapted to accommodate a plurality of medicaments (9) in the form of a pile (7).
9. Medicament dispenser (1) according to the preceding claim, wherein said dispensing unit (10) comprises an ejector (11) configured to slide along a transversal direction **R** with respect to an axis **A** of the elongate compartment (3), said ejector (11) being slidable from an inner position where it collects a medicament (9) located at said bottom end (6) of the compartment (3) to an outer position where the ejector (11) protrudes out of the dispenser (1) to deliver said medicament (9) and vice/versa.
10. Medicament dispenser (1) according to the preceding claim, comprising a resilient means (8) located at said top end (5) of said compartment (3), said resilient means (8) being arranged to exert a pressure on said pile (7) such to ensure that the medicament (9) located at the bottom end (6) of the compartment (3) is intercepted by said ejector (11) for delivery when the latter is in said inner position.

11. Medicament dispenser (1) according to claims 9 or 10, further comprising a blocking device (22) associated to said ejector (11), said blocking device (22) being adapted to prevent/allow a movement of the ejector (11) when activated/de-activated by said control unit (13).
12. Medicament dispenser (1) according to the preceding claim, wherein the activation/de-activation of said blocking system (22) is operated by said control unit (13) based on said user authentication data (76) and said delivery control data (16).
13. Medicament dispenser (1) according to any of claims 11-12 and 3-7, wherein the activation/de-activation of said blocking system (22) is operated by said control unit (13) based on said health data (17).
14. Medicament dispenser (1) according to the any of claims 9-13, wherein said ejector (11) is connected to a slidable button (23), located on an external wall (24) of the medicament dispenser (1), said slidable button (23) being operable by the user (2).
15. Medicament dispenser (1) according to any of the claims 1-7, wherein said internal storage (52) is configured to accommodate a canister (52) that is adapted to store said medicament (53) in a form such to be delivered as an inhalable aerosol (53).
16. Medicament dispenser (1) according to the preceding claim, wherein said dispensing unit (101) comprises a movable shutter (26) for allowing/preventing access to said canister (52).
17. Medicament dispenser (1) according to the preceding claim, wherein said movable shutter (26) is connected to a slidable lever (27) of the medicament dispenser (1) and operable by the user (2).

18. Medicament dispenser (1) according to any of claims 15-17, wherein said canister (52) comprises an upper component (28) adapted to be connected to an inhaler (51), for inhaling the aerosol (53).
19. Medicament dispenser (1) according to any of the preceding claims, comprising a cover (29) for accessing said internal storage (3, 52), said cover being removably connected to a main body (30) of the medicament dispenser (1) by a locking/unlocking means.
20. Medicament dispenser (1) according to the preceding claim, wherein said locking/unlocking means is configured to cooperate for connecting/removing said cover (29) with an external medicament re-filling apparatus (32), when the latter is located in physical proximity with the medicament dispenser (1).
21. Medicament dispenser (1) according to any of claims 19-20, further comprising a safety clamping mechanism (39) configured to irreversibly prevent unlocking of said cover (29).
22. Medicament dispenser (1) according to the preceding claim, wherein said safety clamping mechanism (39) is activable by said control unit (13) upon reception of a service termination order (40) from the remote server (15).
23. Medicament dispenser (1) according to claims 21 or 22, wherein said safety clamping mechanism (39) is associated to an internal electric circuit (41) arranged to detect a local attempt of forcing the medicament dispenser (1) to access the internal storage (3, 52), wherein said safety clamping system (39) is activated if such attempt is detected.
24. Medicament dispenser (1) according to any of claims 21-23, wherein said safety clamping mechanism (39) comprises an electro-mechanical switch (42) including a component (431) having a slidable pin (43), said pin (43) being arranged when activated to project into a receiving groove (44) of said cover (29) to prevent its removal.

25. Medicament dispenser (1) according to any of the preceding claims, wherein said destruction system (45) is activable by said control unit (13) upon reception of a service destruction order (46) from the remote server (15).
26. Medicament dispenser (1) according to any of the preceding claims, wherein said destruction system (45) is associated to an internal electric circuit (41) arranged to detect a local attempt of forcing the medicament dispenser (1) to access the internal storage (3), wherein said destruction system (45) is activated if such attempt is detected.
27. Medicament dispenser (1) according to any of the preceding claims, further comprising a puncher element (50) configured to break, when activated, said frangible walls (48), said reservoir (47) being arranged within said internal storage (3, 52) such that upon breakage of said frangible walls (48) said medicament-neutralizing agent (49) is released within the internal storage (3, 52).
28. Medicament dispenser (1) according to the preceding claim, wherein said destruction system (45) comprises an electro-mechanical switch (42) including a component (431) having a slidable pin (43) such that, when activated, the slide of said pin (43) triggers a release of said puncher element (50) for breaking said reservoir walls (48).
29. Medicament dispenser (1) according to claim 28 and 24, wherein said electro-mechanical switch (42) is arranged such that the slide of the pin (43) causes both its projection into said receiving groove (44) of the cover (29) for preventing its removal and the release of said puncher element (50) for breaking the reservoir walls (48).
30. Medicament dispenser (1, 200) according to any of the preceding claims, that is a portable device (1, 200).