

Claims:

1. A needle-free device for the delivery of at least one therapeutic and/or prophylactic agent comprising a housing having:
 - 5 a rear-end including a force generator and rear piston;
 - a front-end for receipt of a cassette comprising a solid therapeutic and/or prophylactic agent for delivery, the housing comprising a front piston having a central aperture defining an axis, the piston being slidably mounted within the front-end;
 - 10 a spindle positioned between the front-end and rear-end and operatively communicating the rear piston with the front-end, the spindle, having a spindle tip, configured to be laterally movable between a position axially aligned with the central aperture and an axially offset position;
 - a reset spring seat;
 - a reset spring, positioned between reset spring seat and the front piston; and
 - 15 a spindle retaining element, structurally and functionally configured to exclusively retain the spindle in the axially offset position.
2. The device of claim 1, whereby the spindle retaining element is positioned proximal and/or adjacent to the spindle tip.
3. The device of claim 1 or 2, whereby the spindle retaining element holds the spindle tip in the axially offset position by an attraction force
 - 20 4. The device according to any preceding claim, wherein the spindle retaining element is magnetic, preferably a magnetic ring.
 5. The device according to any preceding claim, wherein the spindle comprises a material attracted to the spindle retaining element.
6. The device according to claim 1, wherein the spindle retaining element is configured to physically bias the spindle into the axially offset position.
 - 25 7. The device according to claim 6, wherein the spindle retaining element comprises a coil housed within the reset spring, wherein the apex of the coil is axially offset.
 8. The device according to claim 1, wherein the spindle retaining element comprises a spring wire adapted to anchor the spindle in the axially offset position.
 - 30 9. The device according to any preceding claim, further comprising a spindle alignment mechanism.

10. The device according to claim 9, wherein the spindle alignment mechanism comprises an alignment sleeve having a ramp adapted to guide a middle section of the spindle causing lateral movement of the spindle tip toward the axially aligned position.
- 5 11. The device according to any preceding claim wherein the force generator comprises an actuation spring.
12. The device according to claim 11, wherein the reset spring and the actuation spring are provided in parallel.
13. The device according to any previous claim, wherein rear piston adjoins the spindle by a rotational joint.
- 10 14. The device of claim 13, wherein the rotational joint comprises a female connection or socket for the receipt of a corresponding male connection, located at the rearward end of the spindle.
- 15 15. The device of any previous claim in combination with a cassette for use with the device, the cassette housing a tablet, microtablet or splinter comprising at least one therapeutic and/or prophylactic agent.
16. The device of any preceding claim, wherein the device further comprises a connection feedback mechanism which provides tactile signal to the user, in addition to a visual feedback, that the cassette is securely connected and the device is ready to be actuated.
17. The device according to claim 16, wherein the tactile signal is a vibration.
- 20 18. The device of any previous claim, further comprising a cassette release and automatic ejection mechanism, wherein an external casing of the front-end and an external casing of the rear-end are axially rotatable relative to one another and twisting the casings, releases the cassette from an internal structural constraint within the front-end such that force of the reset spring acting on the front piston causes automatic ejection of the cassette from the device.
- 25 19. A needle-free device for delivery of a therapeutic and/or prophylactic agent comprising a housing including:
 - a rear-end section including a force generator for pushing a solid drug comprising a therapeutic and/or prophylactic agent from said device;
 - 30 a front-end section for receipt of a cassette comprising the drug, the front-end comprising a front piston slidably mounted therein; and
 - a cassette release and automatic ejection mechanism, in which a first casing enclosing front end section is axially rotatable relative to a second casing enclosing the rear-end section are one another and twisting the casings relative to one another, releases an internal structural constraint for retaining the cassette within the front-end, enabling force acting on the front piston to cause automatic ejection of the cassette from the device.
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