The NIS Injector®
Ideal Platform for Biological Drugs as well as Small Molecules

System Overview

- Extremely robust cartridge based injection device for single use applications
- Intramuscular or subcutaneous injection
- True platform for various formulations
- Superior performance with high viscous drugs
- Fill volumes from 0.1ml to 3ml using industry standard glass or COP/COC cartridges
- No strain peak due to pre-pressurization
- Connectivity may easily be added

Key Advantages

- Superior delivery of viscous formulations: 1 ml (of up to 100 cps) within 10 seconds with 31G / 29G or 27G injection needle, see figure 2
- Pressurized system: No air bubble; reduced likelihood for loss of sterility; no stopper movement
- Improved stability: Positive pressure during storage provides in-built leak detection
- Dry needle: Use of smaller gauge needles possible, no boot required, less damage (no contact with cap), smaller needles possible
- Advantages of cartridge based systems: Variable needle sizes, no tungsten, no glue, drug product is not in contact with needle during storage
- No possibility of accidental discharge: Drug delivery activated only when injection needle is fully inserted
- Easy-of-use design: No release button, only two user steps; no hand movement, see figures 1, 2
- Improved compliance: Unique visual control of injection in real time, silent operation

Status

- Protection by own relevant IP claims: Worldwide patents being prosecuted or already granted
- Freedom to operate regarding third party rights
- Prototypes for demonstration purposes are available
- Less than 12 months from current status to availability of functional prototypes for R&D purpose (pre-designed with a tool box)
- CE-Mark registration is under development

Development Options

- True platform: only few changes necessary to enable various formulations, volumes and viscosities (e.g. different spring forces or flexible needle lengths / diameter)
- Customized features and design possible


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