

Cubis® II Micro Balances for Transdermal Drug Delivery Assessment

Microneedles are designed as arrays of tiny needles, each measuring up to 1,500 micrometers in length, which can penetrate the outermost layer of the skin (stratum corneum) without reaching the deeper dermal layer where nerve fibers and blood vessels are located. This allows for a virtually pain-free delivery method. They have been shown to be effective in delivering drug molecules with higher molecular weights and various polarities, including proteins, hormones, peptides, and genetic material.

Testing Challenge

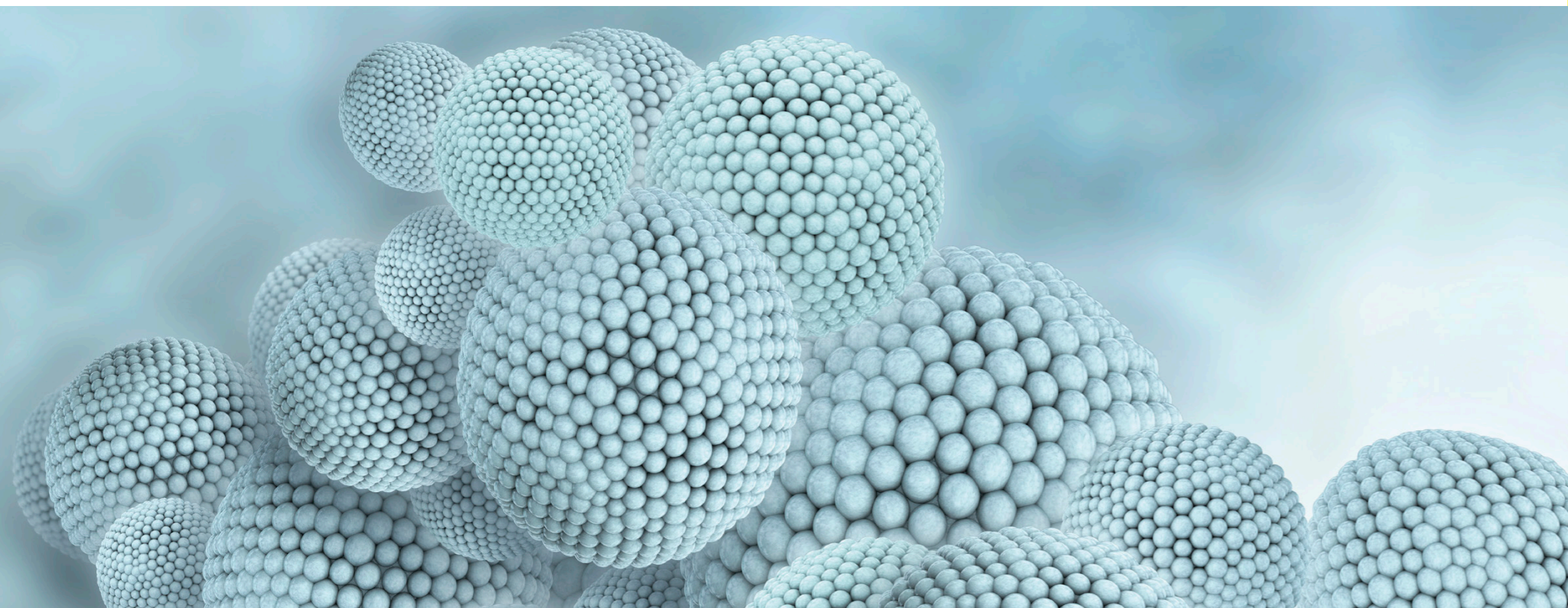
- Patch biocompatibility and minimal skin irritation, as described in ISO 10993-18
Chemical characterization
- Validation of accurate dosing
- Regulatory approval

The Solution

- Cubis® II microbalance with 1 µg resolution, designed to facilitate the preparation of standards in large vials for elemental analysis for biological evaluation
- Preinstalled application, QAPP, for differential weighing of the drug-patch combination
- Full traceability and data integrity of the dose accuracy, including batch report

The Value

- Audit-readiness with compliant data management
- Improved Low Level of Quantification (LLOQ) thanks to precise preparation of standards
- Limited human error with preinstalled workflow on the balance



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