

**Real-Time Biomass Monitoring in Fermentation &
Cell Culture**

Protein Aggregation & Stability Analysis

**Colloid & Suspension Stability in
(Bio)pharmaceutical Formulations**

**Kinetic Studies of Enzymatic & Biochemical
Reactions**

**Characterization of Particles & Aggregates in
Biological Samples**

Comprehensive analytical characterization of :

Cell cultures & cell
suspensions

Protein solutions &
aggregates

Virus particles / VLPs

Exosomes

3D spheroids

Antibody formulations

Vaccines & Adjuvants

Liposomes & lipid
nanoparticles

Protein-based
nanoparticles

Biopharmaceutical
formulations

Tissue engineering
suspensions

Polymeric & hybrid
nanoparticles

Magnetic nanoparticles

Dendrimers

Microparticles

Emulsions & suspensions

Hydrogels

Microfluidic / lab-on-chip
platforms

Single Particle Optical Counter

- Distinguish mono- or multi-modalities from polydisperse samples
- Large dynamic range (particle sizes 40 nm - 8 μm) without range switching or component changes
- Counting rate: up to 10,000 per second
- Typical measurement time: 1 min.
- Quick & easy: One-point calibration using reference particles
- High-resolution analysis for nanoparticles and microparticles
- Particle concentration range: 10^3 ml^{-1} to 10^9 ml^{-1}
- SEPView[®] software with touch-display and browser-based interface

Meets ISO 21501-2 for nanoparticle design and contamination detection.



Multi-wavelength Dispersion Analyser

- Get direct & accelerated stability measurements in original concentration
- Particle size distribution (PSD) with high resolution
- Run up to 12 samples at a time
- See and understand your complete sample from top to bottom
- Measure samples under a broad temperature range (4 °C to 60 °C)
- Measure particle size distribution even at higher concentrations
- Analyse concentrated samples (up to 90%)
- Acquire particle densities
- Comparative and predictive shelf life analysis

Norms: ISO 13318, ISO/TR 13097, ISO/TR 18811, ISO 18747, ISO 20427



Selected Life Science Application Notes:

Challenges in the Development of Drug Device Combination Products for Biopharmaceuticals: <https://bit.ly/4rlPDHc>

Particle Detection and Characterization for Biopharmaceutical Applications: Current Principles of Established and Alternative Techniques: <https://bit.ly/4rwznTV>

Extraction of recombinant periplasmic proteins under industrially relevant process conditions: Selectivity and yield strongly depend on protein titer and methodology: <https://bit.ly/3MtBs3Q>

Webinar “Direct and accelerated stability testing extended by temperature ramp”:
<https://bit.ly/3wMLFNg>

In vitro SPF and Photostability Assays of Emulsion Containing Nanoparticles with Vegetable Extracts Rich in Flavonoids: <https://bit.ly/3JwT9LV>

Hyaluronic acid incorporation into nanoemulsions containing Pterodon pubescens Benth . Fruit oil for topical drug delivery : <https://bit.ly/40hcBSS>

Lipid nanoparticles for delayed delivery of fragrance with enhanced water solubility, their preparation and use: <http://bit.ly/3Hsp3qa>

Vaccine & Adjuvants Application Notes:

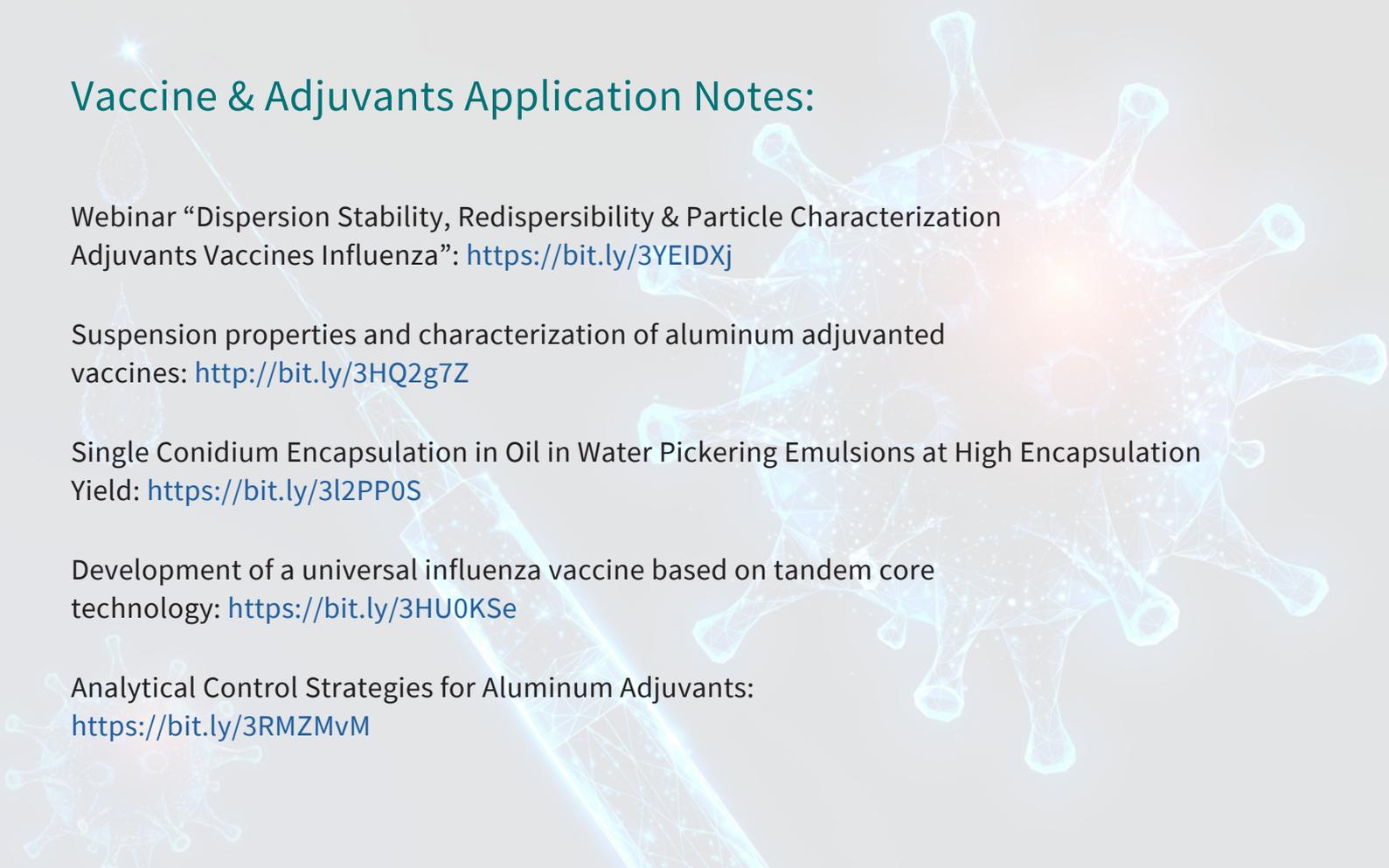
Webinar “Dispersion Stability, Redispersibility & Particle Characterization Adjuvants Vaccines Influenza”:
<https://bit.ly/3YEIDXj>

Suspension properties and characterization of aluminum adjuvanted vaccines: <http://bit.ly/3HQ2g7Z>

Single Conidium Encapsulation in Oil in Water Pickering Emulsions at High Encapsulation Yield: <https://bit.ly/3l2PP0S>

Development of a universal influenza vaccine based on tandem core technology: <https://bit.ly/3HU0KSe>

Analytical Control Strategies for Aluminum Adjuvants:
<https://bit.ly/3RMZMvM>



Social



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Community

Visit our platform 'Dispersion Letters' dedicated to professionals working in various fields of R&D, QC:



bit.ly/3HglILZ

Knowledge

For further information, search the LUM Literature Database:



bit.ly/3J1mUUS

Demo & samples

Contact us for sample testing, instrument demonstrations or application support:



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