Peer reviewed articles of team 6 during the last five years (2013-2018): Gilles PONCHEL, Christine VAUTHIER and Kawthar BOUCHEMAL


2016


Serial multiple cross immunoelectrophoresis: Analysis of complement protein C3 activation by nanomaterials
Platelets of \( O \)-palmitoyl-amylpectin/\( \alpha \)-CD in emulsions with 10/90wt.% silicone oil in transmission (left) and reflection (right) modes (bar = 10\( \mu \)m).

AFM: atomic force microscopy, TRPS: tuning resistive, NTA: nanoparticle tracking analysis, AsFiFFF: Asymmetric field flow fractionation, SLS: static light scattering, DLS: dynamic light scattering with detection at 90\(^\circ\), 173\(^\circ\) and at multiangle, PCS: photon cross correlation spectroscopy.


Compositions of microemulsions formulated in this work compared with those of the litterature

Aqueous phase: 66.7%
Surfactant: 13.7%
Copaiba essential oil: 19.6%

Pharmaceutical microemulsions from the litterature


2015


**DLS measurement protocol**

Brownian motion

Stokes-Einstein equation

\[ d(H) = \frac{k_B T}{3\pi\eta D} \]

**VALIDATION: Robustness, precision and trueness**

- **Precision study**
  - Day 1 to 3
  - Sample 1 to 2
  - Replicate 1 to 3

- **ANOVA**

**ELS measurement protocol using PALS to determine zeta potential**

**Validation**

Robustness, precision and trueness (using nested design and ANOVA)


Representation of the complex of Me-β-CD (yellow) with clotrimazole (CTZ, cyan) obtained by molecular docking with 1:1 (higher panels) and 2:1 (lower panels) stoichiometry.

Surfaces colored in yellow and cyan represent solvent accessible surfaces for Me-β-CD and CTZ, respectively.

**2014**


