Postdoc on the impact of the skin surface on the longwear properties of a cosmetic coating

Context & Objectives

The long-lasting performance of cosmetic deposits is a key expectation from consumers. A better understanding of the key parameters driving the adhesion of a coating at the surface of the skin would allow the development of more performing products.

This study aims to better understand the impact of the skin surface on the longwear properties of a coating, especially on the adhesive properties of this deposit. Another way to express the objective of this study is: How the properties of the skin surface could influence the long-lasting performances of a cosmetic coating?

More precisely, the project concerns the development of protocols to evaluate on ***ex-vivo*** and ***in-vivo*** stages the adhesive properties of coatings. The characterizations of the skin surface would complete this study. Finally, the impact of different treatments of the skin could be explored to determine the key parameters to reach high level of lasting performances. The relationship between the skin surface state and the adhesion of a coating could be establish.

Keywords

Biophysics, Adhesion, Coatings, Cosmetics

Candidate profile

We are looking for a postdoc. The funding is for two years. The candidate will have a fair understanding of biophysics, contact mechanics, Raman microscopy, adhesion and physico-chemistry.

Work environment

The work will take place within Ecole Centrale de Lyon (Laboratoire de Tribologie et Dynamique des Systèmes (LTDS)) in collaboration with L'Oreal. It will be supervised by Prof. Hassan Zahouani and in direct contact with biophysicians, physico-chemists, clinicians and image processing scientists. It should start as soon as possible.