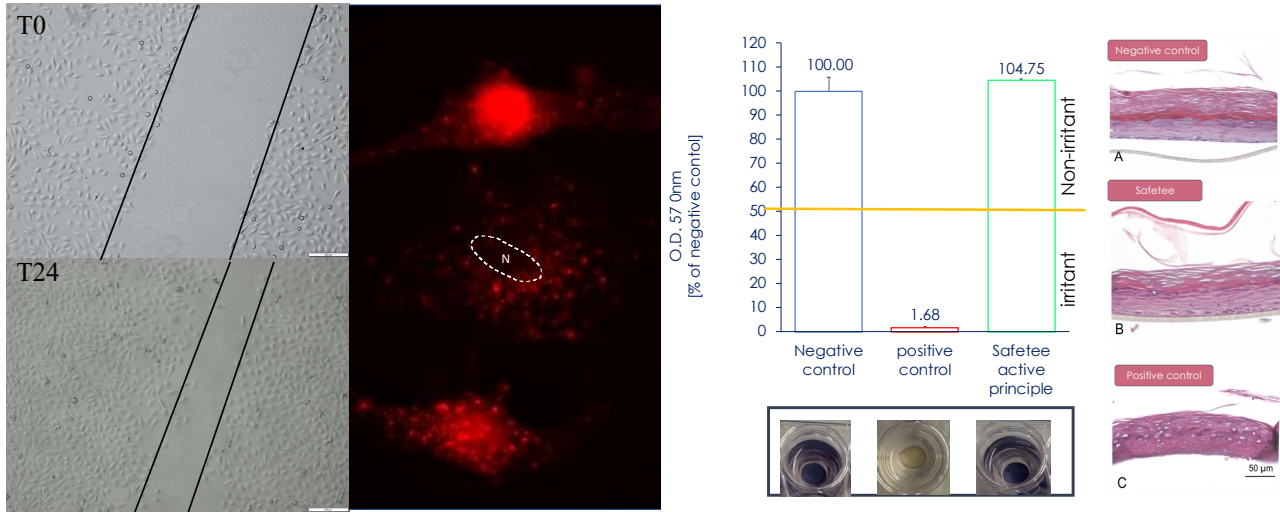


SKIN PHYSIOLOGY

Identification of natural active compounds for the functional and structural maintenance of the epidermis in different organisms.



Maintaining the integrity of the epidermis is mandatory for the survival of organisms, that must be separated from the surrounding environment. This need arises throughout the evolutionary arc and becomes particularly important for amphibians, where keratinized skin appears for the first time.

The study of the protective mechanisms of the skin of amphibians, occurring with some species-specific mechanisms, can contribute to increase the knowledge of the comparative physiology of their skin.

It is well known that humans present a keratinized epidermis, which also needs protection from physical, chemical and biological damage. In this perspective, we are conducting a research aimed at studying sanitizing agents that respect the integrity of the hydrolipidic film, as well as a research focused on the valorization of waste materials from food and agriculture in order to extract antioxidant molecules, protective against UV rays, promoting the healing of wounds etc ...

The use of three-dimensional models of human skin represent an excellent tool to investigate the effectiveness of the identified molecules, ensuring the safety of the user.

Keywords: epidermis; physiology; integrity; protection; antioxidants; UV rays; wound healing.

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