Encontro Investigação Jovem da Universidade do Porto

BOOK OF ABSTRACTS

06 - 07 - 08 Maio 2026

19.ª Edição

ORGANIZAÇÃO

U.PORTO

iUP INVESTIGAÇÃO JOVEM DA UNIVERSIDADE DO PORTO

APOIO

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YOUNG RESEARCHERS MEETING

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PROGRAM

06 - 07 - 08 Maio 2026

19.ª EDIÇÃO

	May, 6th	May, 7th	May, 8th
8H	Opening of the secretariat for all participants		
8H30 > 10H30	PARALLEL ORAL SESSIONS I A1 – Criminology and Law I A2 – Health Sciences I A3 – Sport Sciences I A4 – Architecture I A5 – Engineering I A6 – Biological Sciences I	PARALLEL ORAL SESSIONS IV A1 – AgroFood I A2 – Health Sciences IV A3 – Sport Sciences III A4 – Astronomy A5 – Chemistry I A6 – Biological Sciences IV	PARALLEL ORAL SESSIONS VII A1 – Arts I A2 – Health Sciences VII A3 – HSS IV – History, Archeology, Cultural Studies and Communication Sciences A4 – Physics I A5 – Chemistry III A6 – Biological Sciences VII
10H30 > 11H	Coffee Break		
11H > 13H	PARALLEL ORAL SESSIONS II A1 – Criminology and Law II A2 – Health Sciences II A3 – Sport Sciences II A4 – Architecture II A5 – Engineering II A6 – Biological Sciences II	PARALLEL ORAL SESSIONS V A1 – AgroFood II A2 – Health Sciences V A3 – Sport Sciences IV A4 – Maths & Physics A5 – Engineering IV A6 – Biological Sciences V	PARALLEL ORAL SESSIONS VIII A1 – Environment II A2 – Health Sciences VIII A3 – Psychology & Education Sciences III A4 – Physics II A5 – Chemistry IV A6 – Economics & Management
13H > 14H30	Lunch Break		
14H30> 16H	POSTER SESSION I Architecture Biological Sciences I Criminology and Law Engineering I Health Sciences I Sport Sciences I	POSTER SESSION II AgroFood Biological Sciences II Chemistry Engineering II Health Sciences II Sport Sciences II	POSTER SESSION III Arts Astronomy, Physics & Maths Economics & Management Environment & Geology Health Sciences III History & Sociology Psychology & Education Sciences
16H > 16H30	Coffee Break		
16H30 > 18H30	PARALLEL ORAL SESSIONS III A1 – HSS I – Political Sciences A2 – Health Sciences III A3 – Psychology & Education Sciences I A4 – HSS II – Political Sciences, Sociology and Geography A5 – Engineering III A6 – Biological Sciences III	PARALLEL ORAL SESSIONS VI A1 – Environment I A2 – Health Sciences VI A3 – Psychology & Education Sciences II A4 – HSS III – History of Art A5 – Chemistry II A6 – Biological Sciences VI	PARALLEL ORAL SESSIONS IX A1 – Arts II A2 – Health Sciences IX A3 – Psychology & Education Sciences IV A4 – HSS V – History A5 – HSS VI – Literature and Philosophy A6 – Health Sciences X

HSS – Humanities and Social Sciences

24767 | Strychnos Madagascariensis fruit components as skin care products

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Background & Aim: Cutaneous xerosis is a dry skin condition characterized by itchy, flaky, and rough skin. Atopic dermatitis, diabetes, and hypothyroidism are diseases that could exacerbate the condition. Therapy includes hydration and, in worst-case scenarios, the use of corticosteroids. The current formulations continue to use ingredients, such as *petrolatum,* a non-renewable fuel. Our aim is to develop a sustainable and eco-friendly water-based toner from *Strychnos madagascariensis*, an African fruit, to treat cutaneous xerosis. (1) **Methods:** Extraction of the different parts of the fruit at room temperature and storage at -20ºC. Contents were chemically characterized regarding their protein content, lipids, minerals and humidity; and a primary formulation will be developed. Water-based toner formulation stability and biocompatibility will be evaluated using cell cultures *in vitro* assays, namely human dermal fibroblasts (HDFs) and spheroids, through viability assays. (2) Statistical analysis will be performed using Graph Pad Prisma 10® and Image J, considering a p-value<0.5 for statistical significance. **Results:** Pre-formulation of water-based toner from *Strychnos madagascariensis* demonstrates biocompatibility and a richness in lipids that could show future efficacy in preventing cutaneous xerosis, by promoting skin tissue repair. **Conclusions:** The developed formulation reveals a potential in treating/preventing cutaneous xerosis, while being a more sustainable approach and thus less harmful to the environment.

Keywords: Cutaneous xerosis; Sustainability; Tissue regeneration; Water-based toner.

References:

1. Chemane SSI, Casal S, Cruz R, Pinho T, Khan M, Pinho O, et al. Chemical Characterization of the Oil Separated by Mechanical Pressing from Strychnos madagascariensis Dried Fruit Pulp Flour. Foods. 2022;11(3).

2. Guerreiro SG, Unger RE, Cerqueira N, Sartoris A, Martins MJ, Barbosa MA, et al. Alkaline phosphatase dual-binding sites for collagen dictate cell migration and microvessel assembly in vitro. J Cell Biochem. 2021;122(1):116–29.