

Exclusive Dealer



PhytoHeal

INTERNATIONAL

Overview

PhytoHeal is a unique research and manufacturing company that bases its products on naturally derived ingredients, with the goal of reduce and treat a variety of problems and diseases that still afflict a large part of the world's population. This is possible thanks to an innovative formula that PhytoHeal was able to create through a series of extensive studies and research.

This revolutionary formula is the basis for all pharmaceutical products, for human and animal use, that PhytoHeal produces and can be optimized and adapted for a multitude of different problems or diseases, thus bringing relief to hundreds of millions of individuals who suffer daily. The combination of these factors shines PhytoHeal in a new light as it forms a new category of products that until now do not exist on the market. Based on the study of certain phytocomplexes, PhytoHeal began conducting extensive research and scientific testing with the goal of creating something revolutionary.

Through such studies, PhytoHeal was able to create an innovative molecule that can not only be applied and optimised for a multitude of different problems, some of which have no cure nowadays, but also causes no risk of any side effects. Due to the particularity of the plant origin of the active ingredient, the products will be classified as both Halal and Vegan.



Overview

Phytoheal has developed an internationally patented formulation featuring a distinctive blend of phytocomplexes. These phytocomplexes work synergistically, and their beneficial effects on human and animal health are backed by scientific evidence. The research team, committed to this innovative endeavor, has dedicated decades to extensive studies and experiments. Their primary goal has been to create products that are not only truly effective but also devoid of the side effects typically associated with chemically composed drugs.

This groundbreaking formulation is designed to address a variety of contemporary health issues. These include increased life expectancy, the growing prevalence of chronic and age-related diseases, widespread drug use, alcohol consumption, unbalanced diets, and the adverse effects of treatments such as chemotherapy and radiation therapy. These issues impact a significant portion of the population and are on the rise.

The scientific and technical efforts behind Phytoheal have concentrated on developing new topical formulations aimed at treating diseases that currently lack valid and lasting remedies. This research is deeply rooted in botanical studies and molecular research, leading to the creation of advanced molecular formulas with applications in human and animal health as well as in cosmetics. The formulation includes phytocomplexes, enzymes, and coenzymes derived from botanical sources. These components are known for their powerful regenerative, antioxidant, and anti-inflammatory properties, setting Phytoheal apart from existing products on the market.

Moreover, the patented mix of phytocomplexes forms the foundation of Phytoheal's pharmaceutical and cosmetic formulations. One of the standout features of this formulation is its remarkable anti-aging mechanism, attributed to a specific botanical ingredient. This mechanism intervenes in the process of cell apoptosis, thereby prolonging the lifespan of cells and reducing their senescence. This intervention results in significant anti-aging benefits, contributing to overall health and longevity.

Overview

The selection of these four segments by PhytoHeal is strategic, targeting both large markets with significant revenue potential and addressing substantial unmet needs, as previously noted. Currently, hundreds of millions suffer from these conditions without effective solutions. Recognizing the severity of these issues, PhytoHeal initiated the development of specialized products for each problem, aiming to create highly effective solutions.

Following the formulation of these initial products, rigorous scientific testing was conducted to ensure their efficacy. The positive results confirmed the products' ability to address the targeted issues, allowing PhytoHeal to move forward with their operational sales program. Starting in September, these products will be available as Dermocosmetics, with ongoing efforts to obtain registration as medical devices.

Simultaneously, PhytoHeal has launched the production of a veterinary product line for both livestock and companion animals, which will also be available from September.

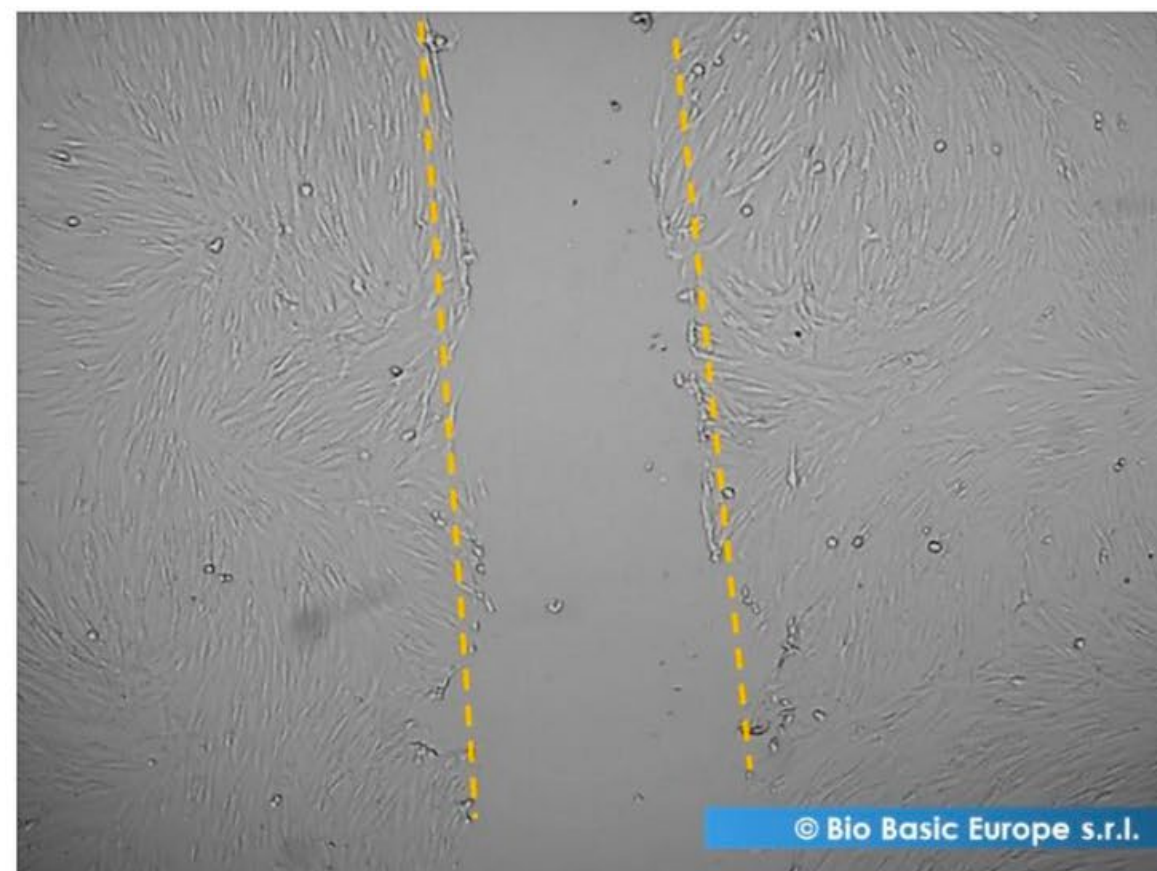
Pharmaceutical Applications

Tissue Regeneration:

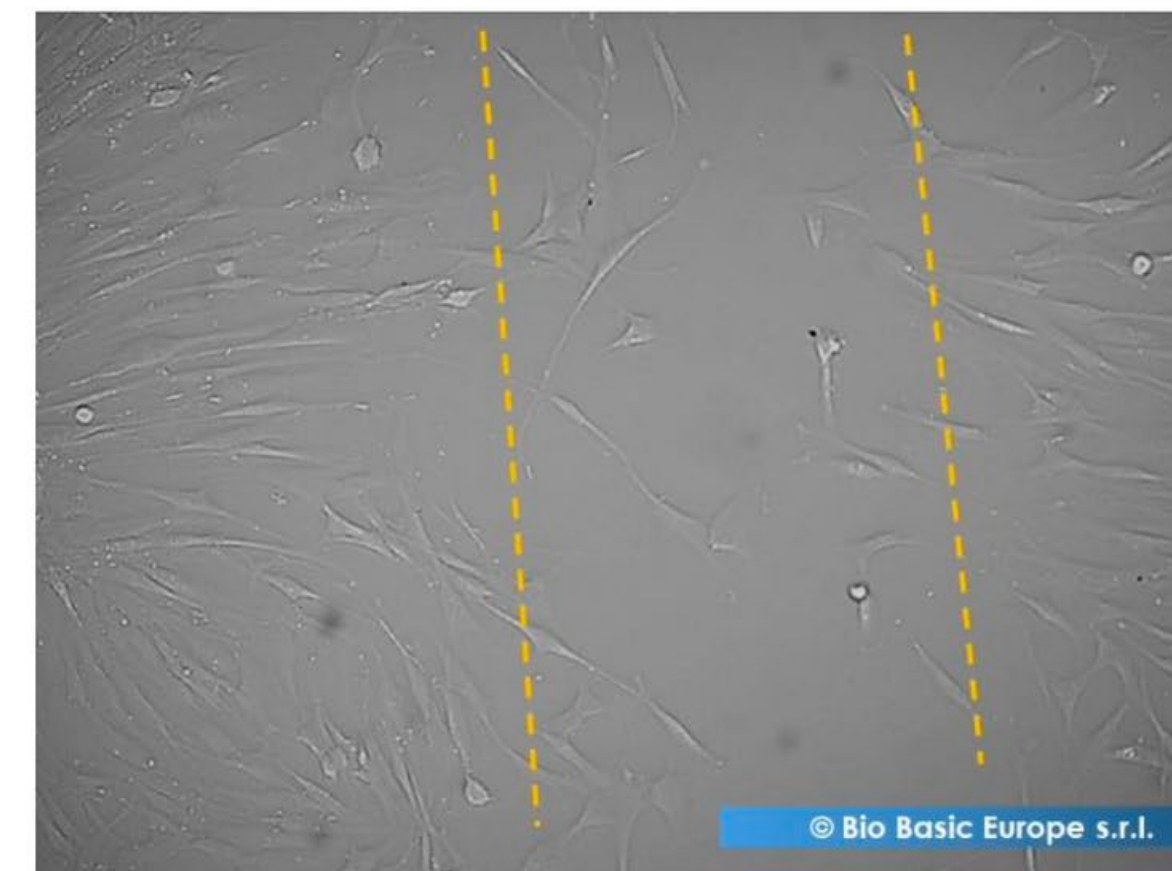
- The healthcare industry faces a significant challenge that incurs billions of dollars annually: surgical wound infections. These infections are among the most common adverse events in healthcare facilities, accounting for 15 to 30 percent of all hospital infections. Alarmingly, they have a mortality rate between 0.6 and 1.9 percent, underscoring their danger.
- Each surgical wound infection typically results in an average of seven additional hospital days, significantly escalating treatment costs. The severity of this issue was highlighted in a cohort study assessing the burden of wounds on the UK National Health Service (NHS) in 2017/2018. The study revealed that approximately 3.8 million patients had wounds managed by the NHS during that year. Among these, 70 percent of wounds healed within the study year, with 89 percent of acute wounds and 49 percent of chronic wounds healing respectively.
- The annual cost of wound management for the NHS was an astounding 8.3 billion pounds, with 2.7 billion pounds associated with healed wounds and 5.6 billion pounds with unhealed wounds. This underscores the critical need for effective tissue regeneration solutions to reduce both the incidence and the financial burden of surgical wound infections.
- This problem is of particular concern for the elderly and obese individuals who are at increased risk of wound complications wounds, including infection, dehiscence, hematoma, and seroma formation. Similarly, people with diabetes are at increased risk of developing wounds that heal slowly, do not heal well, or never heal, leading to life-threatening infections.

Wound Healing Test

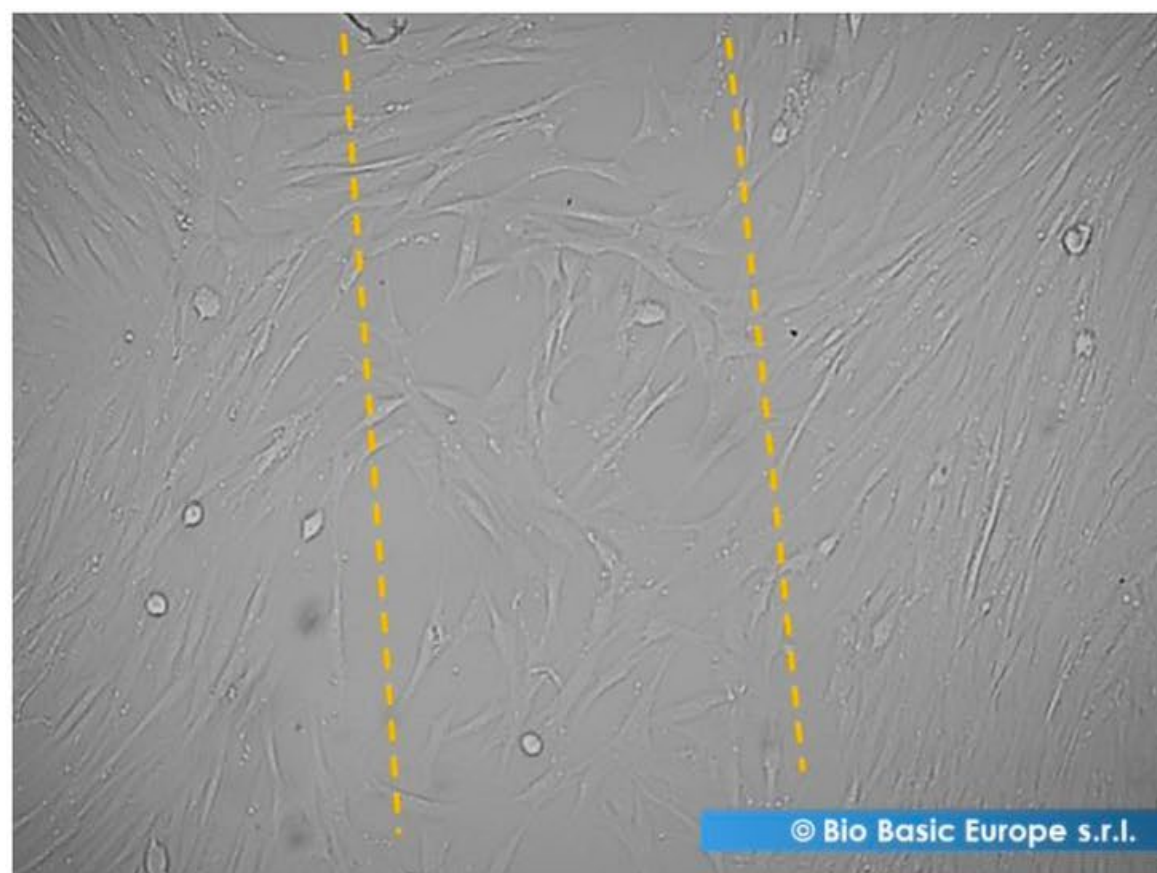
In the figures to the left we can observe an approximation of the edges of the cut in the cells treated with tested sample at the concentrations of 0.2, 0.1 mg/ml after 24 hours of contact. (Magnification 10x; the yellow lines indicate the original margins of the wound).



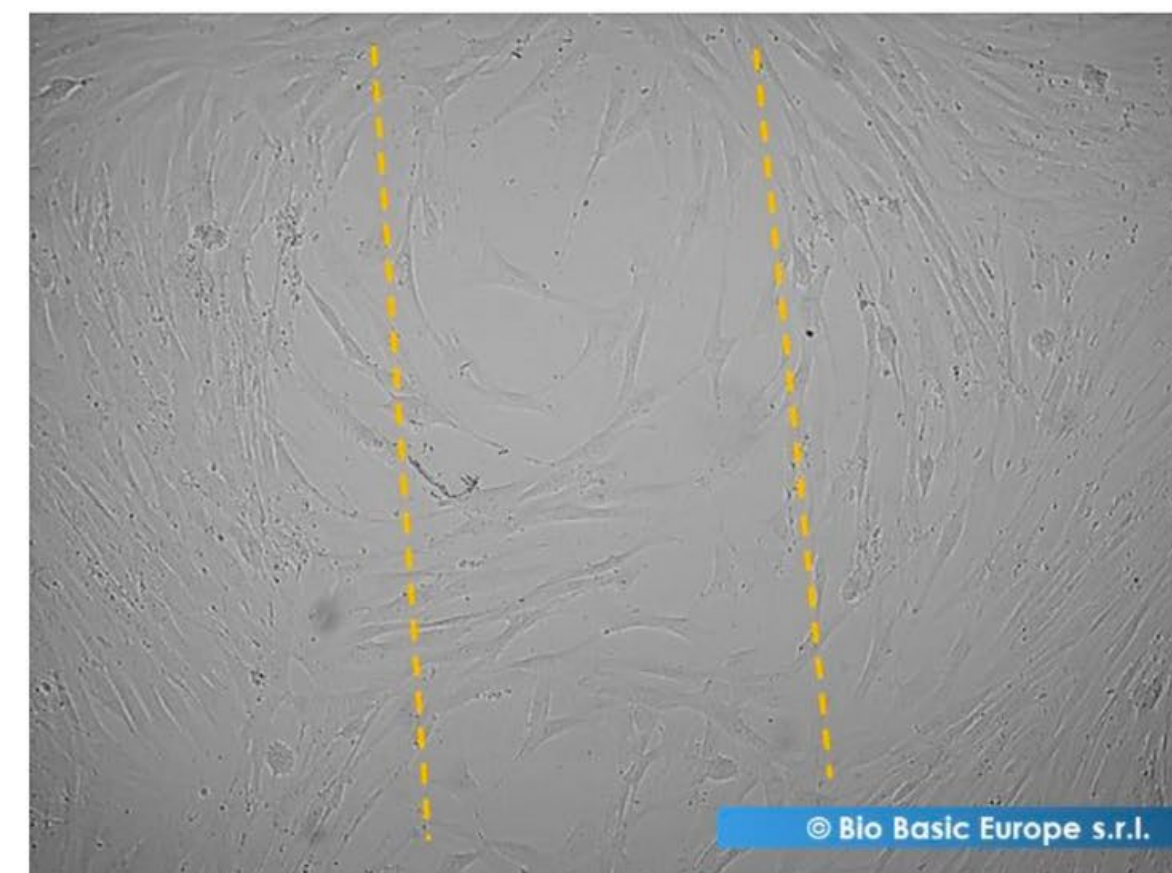
Taglio per simulare una ferita
Cut to simulate a wound



Controllo negativo (cellule non trattate)
Negative control (not treated cells)



Campione testato alla concentrazione di 0.2 mg/ml
Sample tested at the concentration of 0.2 mg/ml



Campione testato alla concentrazione di 0.1 mg/ml
Sample tested at the concentration of 0.1 mg/ml

Testimonial

Quite sever abrasion to hand from fall after 15 days of application

Before



After



Testimonial

Result after 1 month of application, the patient underwent skin grafting in the presence of keratoses that made grafting difficult after removal of a carcinoma
Patient of MD PhD Claudia Martello

After 1 Month



After 2 Months



It should be noted that the rooting of the skin graft has multiple issues that compromise its survival

Pharmaceutical Applications

Skin Diseases:

- According to the Global Atopic Dermatitis Report 2022, around 223 million people globally suffer from atopic dermatitis, including 43 million children aged 1 to 4 years. In the UK, the disease affects approximately 11-20% of children and 5-10% of adults. About 2% of childhood cases in the UK are severe, with most treatment occurring at home and limited interaction with healthcare professionals.
- The Health and Safety Executive (HSE) reports a high incidence of atopic dermatitis among workers, leading to significant social and economic costs. In 2017, the UK had the second highest prevalence of atopic dermatitis among the top five countries with the highest rates.
- Atopic dermatitis profoundly impacts patients and their caregivers, affecting sleep, relationships, school/work performance, psychological well-being, and socialization. Visible lesions on the face and body can cause social stigma and reduce self-esteem. More than half of those with moderate to severe atopic dermatitis experience disturbed sleep, depression, anxiety, and a diminished quality of life and work capability.
- Despite the high prevalence of mild cases in children, atopic dermatitis can persist beyond eight years after diagnosis. The likelihood of persistence into adolescence and adulthood is higher in those with more severe disease. There are notable differences in disease severity across countries. Misconceptions about atopic dermatitis lead to stigma, exclusion, and bullying, with many patients and caregivers experiencing corticophobia (fear of using corticosteroid treatments).
- Treating atopic dermatitis is time-consuming and complex, involving the avoidance of triggers and managing symptoms effectively.

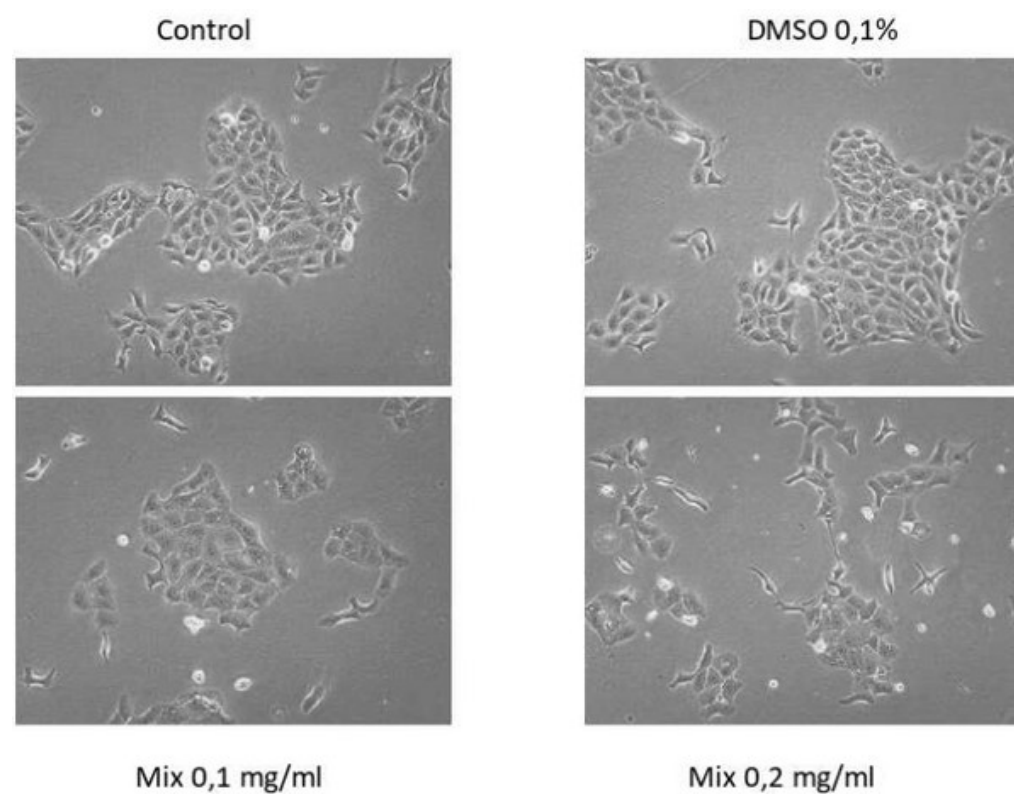
Pharmaceutical Applications



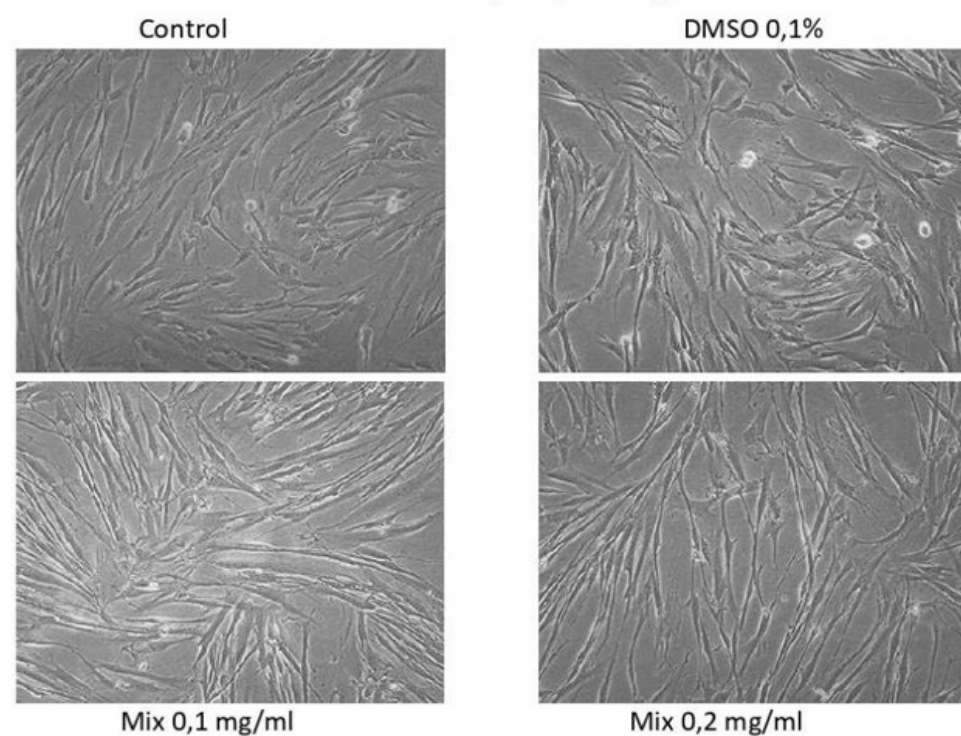
3) BIPARAMETRIC ANALYSIS OF BROMODEOXYURIDINE AND DNA CONTENT BY FLOW CYTOMETRY

The present investigation was carried out following what was reported by Dr. Polimeno about the assumptions according to which the cream formulation could have positive effects in a skin pathology which, again according to what was reported, could probably be assimilated to psoriasis. Although the hypothetical resolution of the clinical picture determined by the application of the formulation was reported in the absence of controls, the hypothesis we considered through this specific investigation wanted to ascertain whether the formulation could have antiproliferative activity on cells, the latter activity indicated by the literature as an improvement in the treatment of psoriasis.

Pharmaceutical Applications

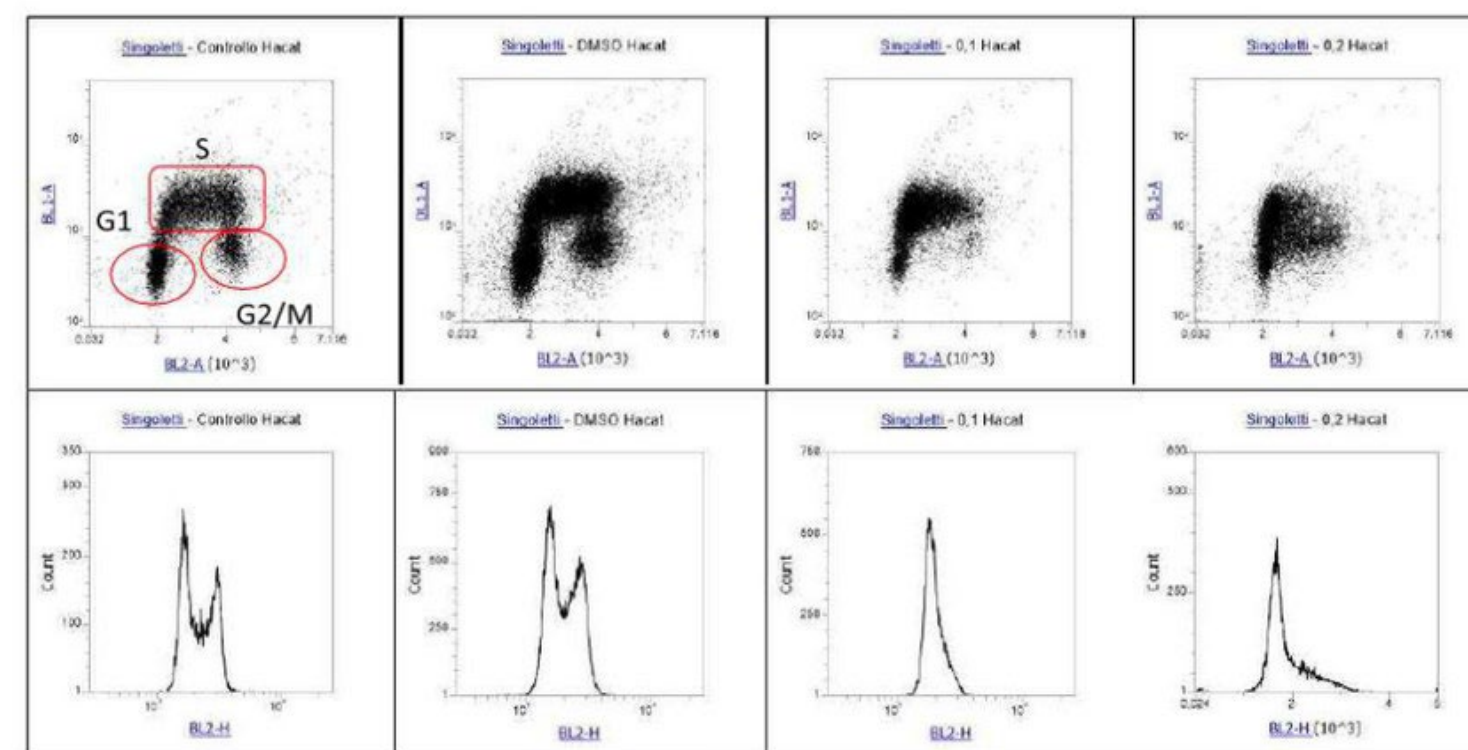


Results. The morphological observation of the HaCaT cells treated for 24 h with the two concentrations of the mix of phytocomplexes which proved to be non-cytotoxic, shows a reduced cell growth with respect to the control and solvent control (DMSO), underlined by the absence of mitosis (visible in the following figure 5 obtained by phase-contrast microscopy as small circles) and, at the highest concentration, by a morphological modification towards a more mesenchymal phenotype.



In more detail, the proliferative capacity of these cells was investigated by flow cytometry, in association with their distribution in the cell cycle (Figure 6). In the upper images are shown the representative cytograms obtained from the labeling of BrdU as a function of the distribution of cells in the replicative cycle.

Figure 6. The images relating to the corresponding cell cycles are shown in the panel below.

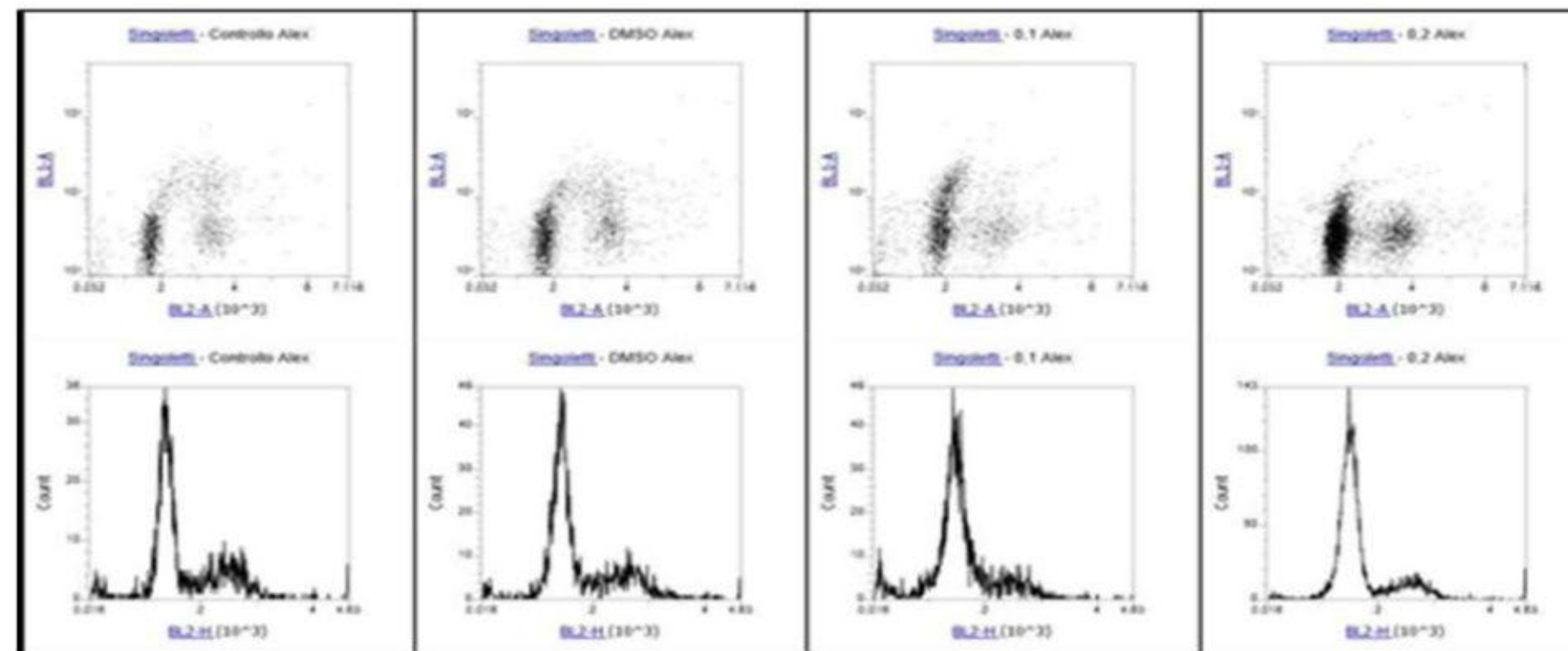


Pharmaceutical Applications

The flow cytometric analysis (Figure 8) shows a more modest cloud of BrdU positive cells than the HaCaT cells, coherently with the less proliferative cell typology, and again a block in G1 after treatment with a mix of phytocomplexes at the respective concentrations of 0.1 and 0.2 mg/ml.

The distribution of cells in the replicative cycle also shows the block in G1 with a marked reduction of cells in the S phase.

Figure 8



Conclusions. Overall, it can be stated that the treatment with mix at concentrations of 0.1 and 0.2 mg/ml in HaCaT cells and fibroblasts induces an antiproliferative activity with block of replicative synthesis confirming the hypothesis put forward in the premise of the present investigation.

Testimonial

Severe Psoriasis after 1 month of application

Before



After



Testimonial

Severe Psoriasis after 2 month of application, patient suffered from Psoriasis for 4 years and couldn't find a solution

Before



After



Pharmaceutical Applications

Inflammation:

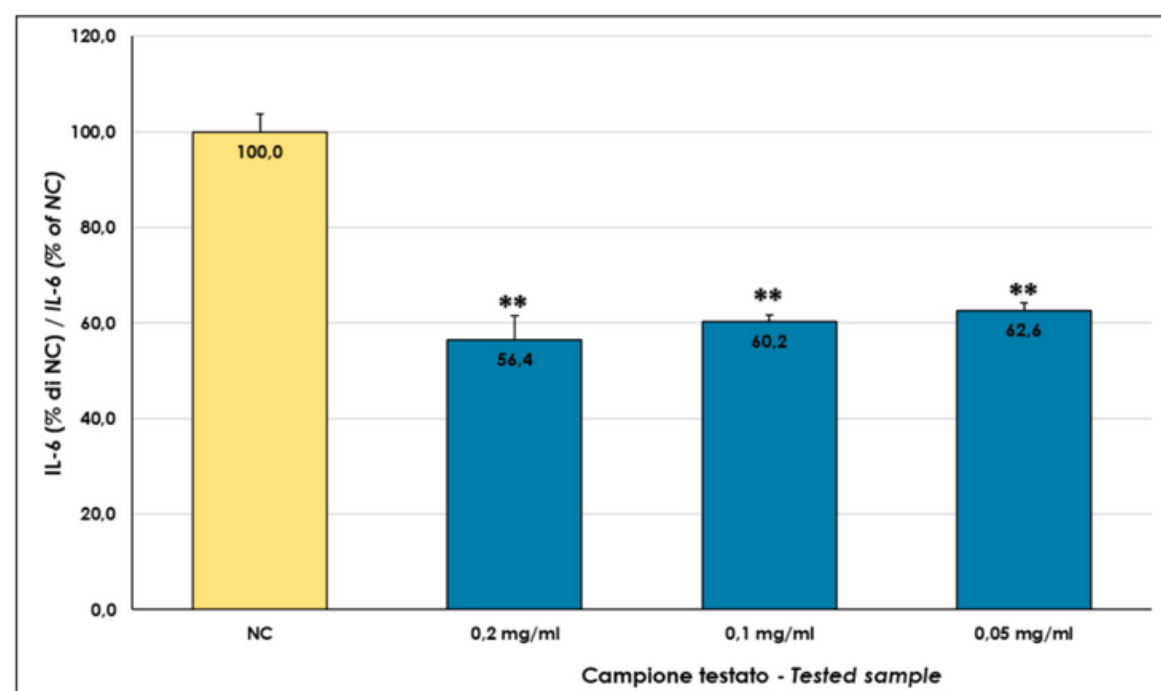
- Arthritis, a prevalent health issue caused by inflammation, affects over 350 million people worldwide and is a leading cause of disability. In North America, arthritis results in more disability than any other chronic condition, including heart disease, diabetes, and back or spine problems. The term "arthritis" encompasses over 100 different types of diseases affecting people of all ages, races, and genders, though it is more common in women. Rheumatoid arthritis is the most prevalent autoimmune type of arthritis. Contrary to popular belief, arthritis is not solely a disease of the elderly; more than 60% of those diagnosed are under 65. The global burden of arthritis is projected to have significant implications for healthcare costs and lost productivity over the next 30 years.
- The British Versus Arthritis Organization's 2019-2020 annual report states, "Arthritis takes a lot out of us: it can take away our ability to work, to care for a family, to move without pain, to live independently, or simply to feel like ourselves." Despite this, arthritis is often dismissed as "just pain" or "just a little wear and tear." This misconception leads to the disease being seen as inevitable, insignificant, or incurable, which is far from the truth. Versus Arthritis challenges this narrative, declaring, "We will not accept that arthritis steals the basics of life from more than 10 million people in the UK."
- The impact of arthritis-related pain extends beyond patients and their immediate circles, imposing a substantial socioeconomic burden. Musculoskeletal conditions, including osteoarthritis (OA), are a major cause of lost workdays and significantly strain healthcare resources. In the UK alone, musculoskeletal conditions affect 18.8 million people, making them the leading cause of pain and disability.
- Over the next decade, the healthcare costs for managing osteoarthritis and rheumatoid arthritis in the UK are projected to reach £118.6 billion. Musculoskeletal conditions account for one-fifth of all sickness absences, resulting in approximately 28.2 million lost workdays annually. These statistics highlight the urgent need for effective arthritis management and intervention strategies to mitigate its widespread impact.

Pharmaceutical Applications

The tested product has proved to significantly reduce IL-6 at tested concentrations.

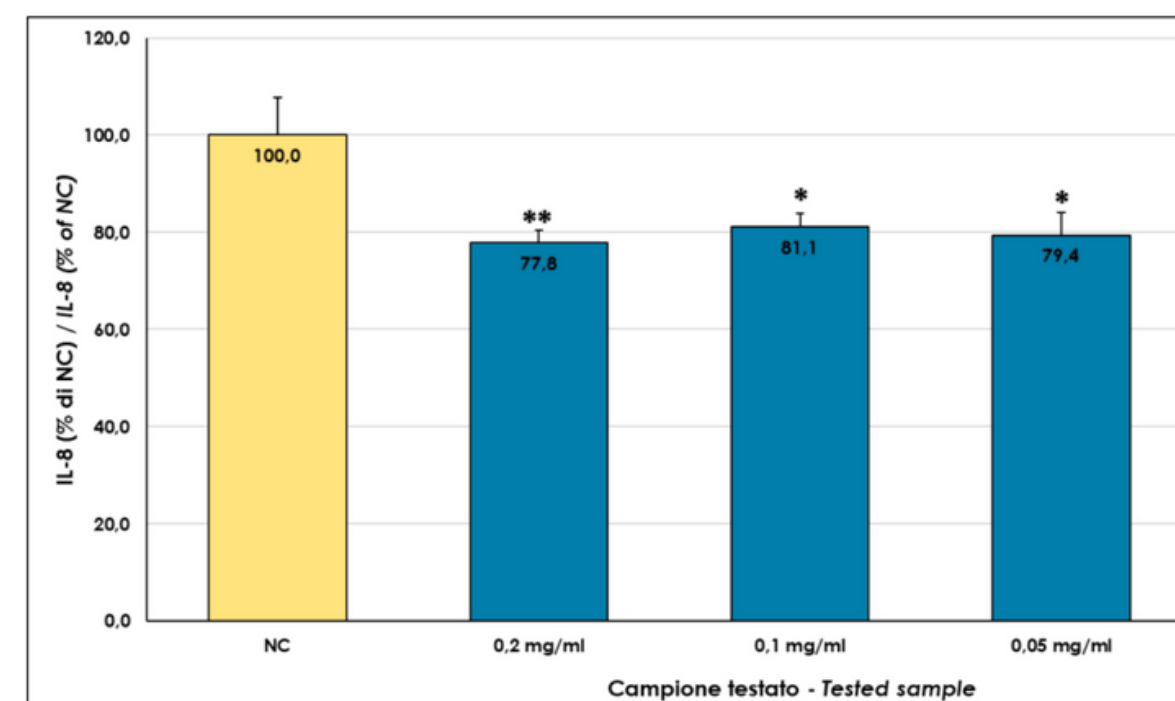
The tested product has proved to significantly reduce IL-8 at tested concentrations.

	NC	CAMPIONE / SAMPLE		
		0,2 mg/ml	0,1 mg/ml	0,05 mg/ml
pg/ml	1002,00	565,33	603,67	627,00
% di NC % of NC	100,0	56,4	60,2	62,6



The absorbance measured at 450 nm is directly proportional to the quantity of interleukin produced by the tissues. To calculate the interleukin concentrations, the OD values were interpolated into a standard interleukin curve. The percentages were calculated with respect to unstimulated and untreated tissues (NC). The values are expressed as means \pm standard deviation. Statistical data processing was performed by Student's t-test. We considered significant values of $p < 0.05$. NC = untreated and unstimulated control tissues; SDS = tissues treated with sodium dodecyl sulphate in order to stimulate cytokines production to simulate an irritation condition; TS = tissues treated with tested sample. * $p < 0.05$ vs SDS; ** $p < 0.01$ vs SDS.

	NC	CAMPIONE / SAMPLE		
		0,2 mg/ml	0,1 mg/ml	0,05 mg/ml
pg/ml	201,83	157,03	163,69	160,23
% di NC % of NC	100,0	77,8	81,1	79,4



The absorbance measured at 450 nm is directly proportional to the quantity of interleukin produced by the tissues. To calculate the interleukin concentrations, the OD values were interpolated into a standard interleukin curve. The percentages were calculated with respect to unstimulated and untreated tissues (NC). The values are expressed as means \pm standard deviation. Statistical data processing was performed by Student's t-test. We considered significant values of $p < 0.05$. NC = untreated and unstimulated control tissues; SDS = tissues treated with sodium dodecyl sulphate in order to stimulate cytokines production to simulate an irritation condition; TS = tissues treated with tested sample. * $p < 0.05$ vs SDS; ** $p < 0.01$ vs SDS.

The soothing activity of the tested product has been assessed by measuring its ability to reduce the amount of cytokines in reconstructed human epidermis (RHE). In particular, we evaluated the production of interleukin1 α (IL-1 α), interleukin 6 (IL-6) and interleukin 8 (IL-8).

The production of cytokines was induced using sodium dodecyl sulphate (SDS). One series of tissues was not stimulated (NC, negative control), one series of tissues was stimulated with SDS and a third series of tissues was stimulated with SDS and treated with tested product.

The results have shown that the tested product is able to significantly reduce the levels of IL-6 and IL-8 with respect to not treated tissues. In the tissues treated with the tested sample, we observed a slight, although not statistically significant, reduction of IL-1 α .

Testimonial

Before



After



Hematoma caused by dog bite after 3
days of application
(Patient of osteopata
Dott. Vincenzo Giulisano)

Testimonial

Ocular trauma, that would not improve after 1 week of normal medical application, additionally it helped the draining of the trauma

Paziente della dottoressa Claudia Martello MD PhD: Master Moorfields in oftalmoplastica
Socio dell'Accademia Americana di Oftalmologia (AAO), della Società Oftalmologica Italiana (SOI) e della Società Italiana
dell'Uveite e delle Malattie Infiammatorie Oculari

Before

After 3 days

After 1 week



Pharmaceutical Applications

Burns:

- Burns represent a global public health crisis, causing significant physical, psychosocial, and financial impacts on individuals, families, and communities. While some models suggest a decline in global incidence, mortality rates remain high in regions lacking adequate burn care resources. Over 90% of burn victims live in low- and middle-income countries, where access to emergency and well-organized burn care is scarce. This leads to a high prevalence of preventable complications, such as hypertrophic scarring, contractures, and amputations. The true global burden and trends in burn injuries are unclear, as estimates from modeling often differ significantly from data collected through population-proportional, cluster-randomized household surveys.
- Each year, between 7 and 12 million people—up to 33,000 daily—suffer burns requiring medical care, resulting in prolonged absences from work or school, or death. Burns from fire, heat, and hot substances are the fourth most common type of civilian trauma worldwide, surpassing the combined incidence of HIV/AIDS and tuberculosis. Fire-related burns alone account for over 300,000 deaths annually, with additional fatalities from scalds, electrical burns, and other types of burns for which data are not available. Both females and males experience similar burn rates, but females are at higher risk due to open-fire cooking, unsafe stoves, and loose clothing.
- Children are particularly vulnerable, with burns being the fifth most common cause of nonfatal childhood injuries and the 11th leading cause of death among children aged 1 to 9 years. Children globally have the highest burn mortality rate. Survivors often face permanent disability and disfigurement, resulting in emotional trauma and social stigma.
- The global burn care market was valued at \$2.3 billion in 2021 and is expected to grow at a compound annual growth rate of 7.1% from 2022 to 2030. This highlights the ongoing need for improved burn prevention and care strategies worldwide.

Testimonial

Burn with superficial necrosis 15 days after application
Patient of Dr. PhD Gianfranco Vettorello

Before



After



Testimonial

Patient in question suffered a sever burn at a young age which never fully healed leaving two open wounds, even after resorting to a variety of therapies. After 2/3 weeks of application of our serum the wounds fully healed.

Before

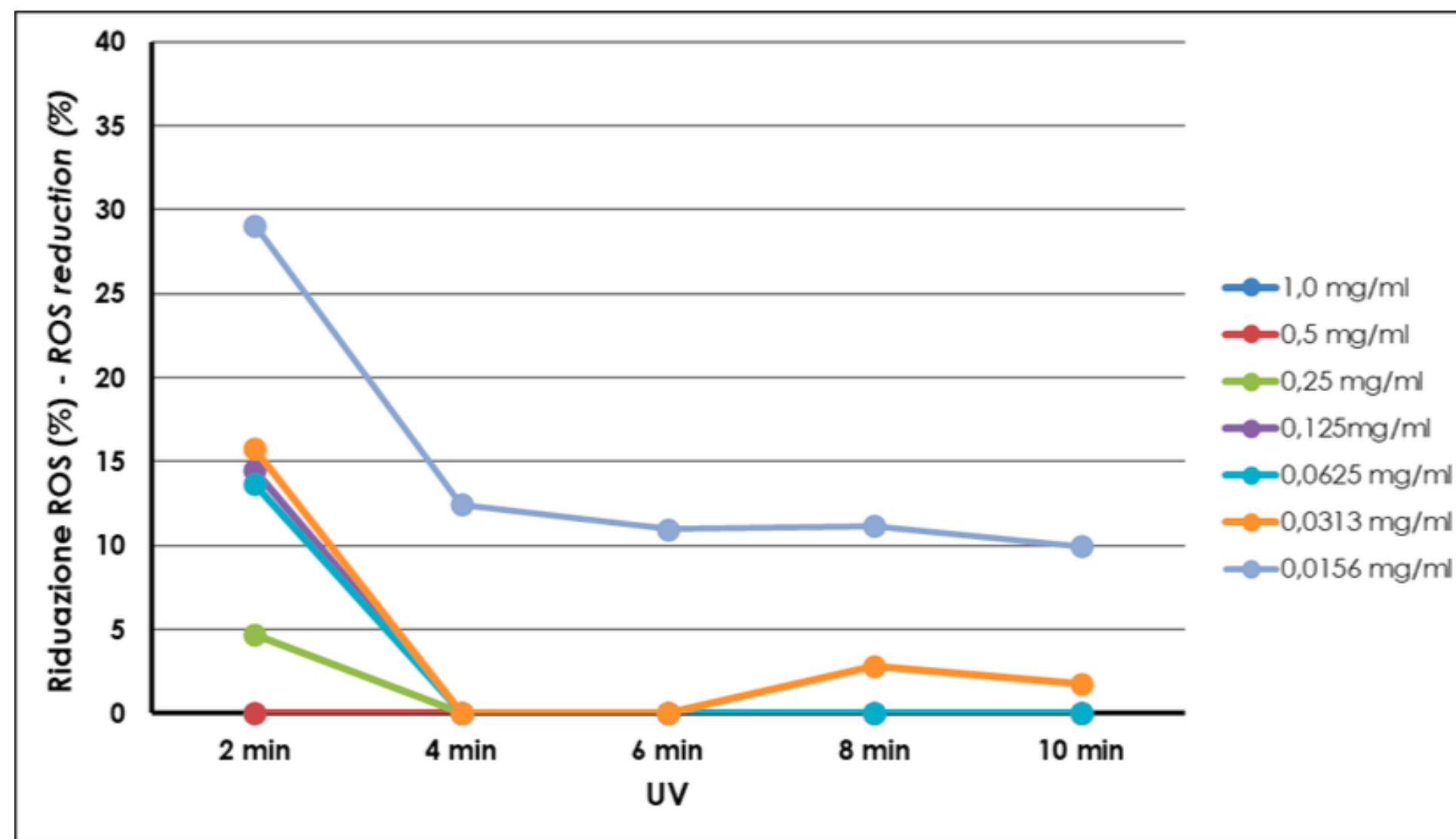


After



Anti-Oxidant Power

Riduzione % ROS / ROS % Reduction								
UV	PC	Campione / Sample (mg/ml)						
		1,0	0,5	0,25	0,125	0,0625	0,0313	0,0156
2 min	54,7	0,0	0,0	4,7	14,5	13,7	15,8	29,1
4 min	62,1	0,0	0,0	0,0	0,0	0,0	0,0	12,4
6 min	67,8	0,0	0,0	0,0	0,0	0,0	0,0	11,0
8 min	55,7	0,0	0,0	0,0	0,0	0,0	2,8	11,2
10 min	31,5	0,0	0,0	0,0	0,0	0,0	1,8	10,0



The sample shows antioxidant activity (significant % reduction of ROS) at tested concentrations between 0.125 and 0.0156 mg/ml after 2 minutes of UV exposure and at tested concentration of 0.0156 mg/ml also after 4, 6, 8 and 10 minutes of UV exposure.

Veterinary Applications

- At the request of numerous livestock operators, Phytoheal initiated a series of trials to evaluate the effectiveness of new formulations on pigs, dogs, and cats with wounds or excoriations. These trials aimed to enhance the healing process and improve the overall health and well-being of the animals.
- The care of animals, whether livestock or companion animals, is essential for ensuring their well-being, preventing suffering, and avoiding infection and premature death. Proper animal care is vital not only from an ethical standpoint but also due to increasingly stringent regulations that mandate the protection of animal health. Non-compliance with these regulations can result in severe penalties, including substantial fines and the potential closure of operations.
- Recognizing the importance of these standards, Phytoheal has dedicated significant resources to developing innovative solutions for animal care. Beginning in September 2024, Phytoheal will launch a new line of products specifically designed for animals, which includes:
 - Regenerating Dermacosmetic: Promotes skin regeneration and accelerates the healing of wounds.
 - Anti-Inflammatory Dermacosmetic: Reduces inflammation and soothes irritated skin.
 - Dermacosmetic for Dermatitis: Treats and manages dermatitis, providing relief from itching and discomfort.
- These products have been rigorously tested, and the results have surpassed expectations. The positive outcomes of these trials are evident in the following images, showcasing the remarkable improvements in the treated animals. Phytoheal remains committed to advancing animal welfare through continuous research and development, ensuring that both livestock and companion animals receive the highest standard of care.

Testimonial

Pig with severe injury due to tail biting
Result obtained after 4 days with a single application at the Spoldi farm

Before



After



Testimonial

Dog owned by Ms. Gabriella Pettinato with severe chronic ulcerative wound
Wound care is still ongoing but signs of healing are evident

Before



After 4 days



After 9 days



After 15 days



NEW PATENTS

Taking into account the importance of the results of the studies conducted both at a scientific level and in the field, Phytoheal has never stopped looking for effective solutions free of side effects to pathologies that are increasingly spreading.

Thus last August further documents were filed which concern:

- **HEMOSTATIC ACTIVITY**
- **MALIGNANT MELANOMA**
- **ARTHRITIS AND NEUROPATHIES**
- **CHRONIC PAIN**

Obviously our research, study and formulation of new products does not end here, in fact we are only at the beginning!

Thank you



PhytoHeal
INTERNATIONAL

EXCLUSIVE DEALER for:

GERMANY & POLAND



Address

OPOTO GmbH

Urbanstrasse 71, 10967 Berlin, Germany



Telephone

+49 151 63928557



Email

info@opoto.net