



# Bioeffectives®

- STATE-OF-THE-ART PHARMACEUTICS
- EVIDENCE-BASED MEDICINE
- SCIENTIFIC APPROACH

# POLYPRENOLS ESSENTIAL SUBSTANCES FOR HUMAN HEALTH

**Sola gift**

The first and only Russian commercial production of high grade polyphenols derived from conifer green needles

XXV INTERNATIONAL  
SCIENTIFIC AND PRACTICAL CONFERENCE  
**«COSMETIC INDUSTRY: LOOKING AHEAD»**

## HISTORICAL BACKGROUND OF Bioeffectives®

In early 1930s the team of scientists under the leadership of Professor F. Solodky and Dr. A. Agranat from the State Forest Technical Academy in Leningrad initiated research of conifer needles composition. The scientists focused on the phenomenal ability of conifers to remain evergreen and flourish at temperature range of  $\pm 40^{\circ}\text{C}$ . These studies formed the basis for forest biochemistry. The development of the science enabled the Russian researchers to discover and isolate a special class of substances - polyphenols.

Polyphenols were extensively studied in Russia, Europe, Japan, India, and the United States. In 1995, a group of Australian and Russian scientists and businessmen founded a company for manufacture of products obtained from conifer green foliage that have a scientific basis for action, clinically proven effectiveness and are available for mass consumer. Intellectual property and know-how of the Russian forest biochemists became the foundation of the company.

Tomsk company "Solagift" Ltd. is a part of the Australian-Russian biotechnology holding company and successor of the history of scientific and industrial development of forest biochemistry in Russia. The company integrates the intellectual property of scientists and production resources of two countries and cities: Australian Melbourne and Russian science city - Tomsk.



**Vagif Soultanov**

Graduated the State Forest Technical Academy in Leningrad chemical engineer and biotechnologist, a candidate of Chemical Sciences, educated in Russia and Australia

For substantive scientific contribution in chemistry And medicine he was elected an Honorary doctor of St. Petersburg Forest Technical Academy and a corresponding member of the International Academy of Ecology and human safety.



**Alexander Kurganov**

Engineer -inventor, over 17 publications, including a patent for the method of plant polyphenols industrial production.

In 2002 together with a team of Tomsk scientists he set up a bio technology company Solagift, which has become a part of Australian holding company.



**Viktor Roshchin**

Professor of St. Petersburg State Forest Technical University, Doctor of Chemical Sciences.

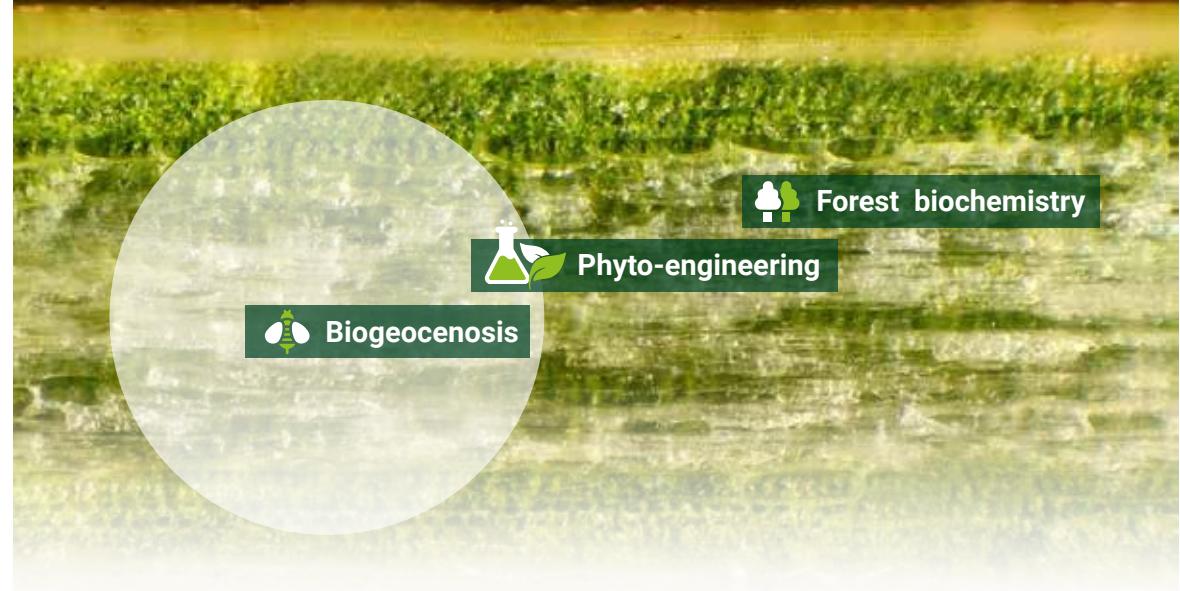
Author of many pre-clinical and clinical studies and one of the main developers of technological process for polyphenol production.

Researcher of the composition, technology of production and use of products made of conifer green foliage.

### PATENT of RF № 2317972

The proposed method allows to obtain polyphenols selectively, with high product output and grade [www.freepatent.ru/patents/2317972](http://www.freepatent.ru/patents/2317972)

Executive Chairman of Biotechnology company Prenolica LTD (Melbourne, Australia).



 **Forest biochemistry**

 **Phyto-engineering**

 **Biogeocenosis**

Antiviral activity of polyphenols in cell culture was demonstrated in the preclinical trials conducted in Russia. Total findings enabled to patent polyphenols as a means for prevention and treatment of infectious diseases and correction of pathological conditions of a living organism.

It is currently a clinically proven fact that polyphenols stimulate the immune system, cell repair and spermatogenesis, and have an anti-stress, adaptogenic, anti-ulcer and wound-healing activity. They have an antioxidant activity and protect cell membranes from peroxidation. The antitumor effect of polyphenols was studied on three models of tumor growth. Polyphenols significantly inhibited the volume and mass of the tumor, reduced the number and total area of metastasis.



**SINCE 2011, POLYPHENOLS HAVE BEEN IN THE LIST OF ESSENTIAL SUBSTANCES FOR HUMAN HEALTH ALONG WITH VITAMINS AND OTHER MICROELEMENTS\***

\* Decision of the Customs Union of 07.04.2011 N 622 "On Amendments to the Unified Sanitary and Epidemiological and Hygienic Requirements for Goods Subject to Sanitary and Epidemiological Supervision (Control)"  
-polyphenols are included in the list of vital and essential components for the human body;  
Adequate consumption level (ACL) of polyphenols is 10 mg / day, max - 20 mg / day.

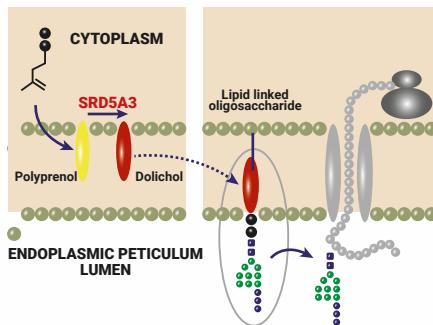
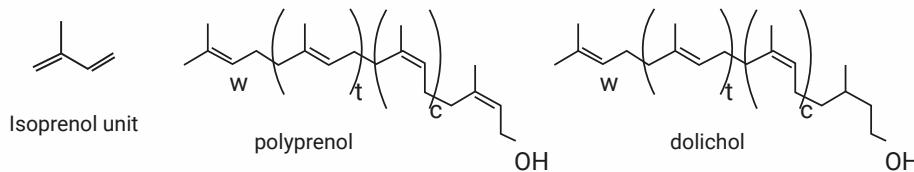
**Solagift**

## POLYPRENOLS – THE MOST IMPORTANT GROUP OF BIOREGULATORS

### ► POLYPRENOLS MECHANISM OF ACTION

Polyprenols are the most important group of natural bioregulators, which belong to polyisoprenoid compounds. Polyprenols are aliphatic isoprenoid alcohols with 7 to 25 isoprene units in the chain.

Structural formulas of polyisoprenols



Free polyprenols, dolichols, and their derivatives acylated with higher fatty acids, perform a big variety of functions in the cell. One of the main functions is modification of the plasma and intracellular membranes, primarily the mitochondria and cell nucleus, to bring them mobility, facilitating movement and placement of protein molecules in the right place, and leveling of temperature impacts.

It is shown that polyprenols and their acyl derivatives increase freedom of movement in dipalmitoyl phosphatidylcholine vesicles both above and below the transition temperature. A low concentration of such compounds reduces two-layer freedom of movement below the transition temperatures, while a high concentration increases it.

When taken orally, polyprenols are absorbed in the intestine, and then metabolized in the liver into dolichols, playing a leading role in the dolichol-phosphate cycle, which is targeted at protein glycosylation, that is, the formation of glycoproteins. Glycoproteins, for its part, are found in all cell membranes, secretions, and connective tissue, they control intercellular interactions, maintain the immune status of the cell, and ensure stability of protein molecules in the membrane. Any disease occurs with damage of membranes, while the body loses dolichols. **Dolichol deficiency can be compensated by taking polyprenols, which are easily metabolized into dolichols and thereby correct disorders and provide a therapeutic effect.**

### ► DOLICHOLS. ROLE IN HUMAN BODY

The structural similarity of dolichols and polyprenols enables to use polyprenols for prevention and treatment of various conditions. The pharmacological action of polyprenols is based on the substitution effect in dolichol deficiency and dolichol-phosphate cycle insufficiency, which is observed in various diseases.

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**The function of polyprenols** is to bind and transfer oligosaccharides to polypeptides (or proteins) and form their complexes. This process is common for the cells of all living organisms, and any abnormality in it leads to disorders in vital functions. Protein glycosylation provides their protection from proteolysis during synthesis and transporting to the place of functioning, and also enables to define the area of the membrane where they should be inserted.

Presence of various forms of polyprenols in the cells of living organisms (free polyprenols and dolichols, phosphorylated, acylated with higher and lower (acetates) fatty acids) implies their different physiological activity and functions. The leading role of dolichol monophosphate in the biosynthesis of glycoproteins is undeniable. The role of dolichols in the biosynthesis of glycoproteins and the role of the glycoproteins themselves in the biosynthesis of immunoglobulins, various types of cell receptors, immunocompetent cells, acrosomes, spermatozoids, etc. are detailed in a number of literary sources.

Studies of functions of polyprenols and their derivatives in human and animal brain (in some parts of the brain, the content of such compounds makes 12-15%) showed that, in addition to modifying membranes for better transmission of signals in neurons, they also perform a protective role. It has been established that polyprenols are in neuronal membranes in approximately equal proportion with tocopherols and are a kind of traps of active forms of oxygen and free radicals.

### ► POLYPRENOLS. EFFECTS ON HUMAN BODY

Polyprenols play a significant function (a role of coenzyme) of glycosylation of integral proteins, receptors of organ cells and immune cells; modify the cell membranes and protect cells from active forms of oxygen and free radicals.

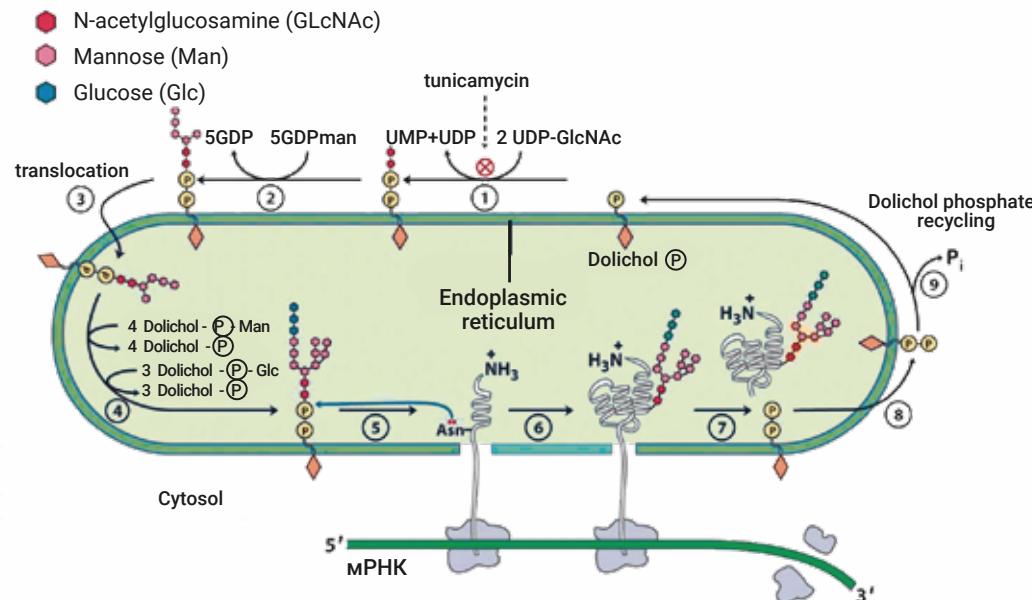
Plant and animal polyprenols have similar structures, but different names: in plants - "polyprenols", in animals - "dolichols". In the human body, part of dolichols is synthesized endogenously, but most of them are metabolized in the liver from plant polyprenols coming with food.

Maintaining an adequate content of dolichols ensures normal functioning of the body, therefore, daily intake of their "plant analogue" - polyprenols, is the best prevention of pathological states and, accordingly, conditions for maintaining health. The therapeutic and preventive action consists in replenishing deficiency of dolichols, both in normal conditions and pathological processes.

External use of polyprenols strengthens the skin structure, has a hydrating effect, stimulates collagen production, which provides a marked effect in cosmetic anti-age products.

# POLYPRENOLS – MULTIFACTORIAL SUBSTANCE WITH MULTISYSTEM ACTION

## MECHANISMS OF ACTION OF DOLICHOLS AND THEIR ANALOGS POLYPRENOLS



### MEMBRANE PROTECTIVE

contribution to regeneration of damaged cell membranes



### ANTIOXIDANT

absorption of lipid peroxide formed on the membrane, improvement of the cell energy metabolism (due to the release of Acetyl-CoA), activation of mitochondrial functions



### IMMUNOMODULATORY

involved in the biosynthesis of glycoproteins, maintenance of the cell immune status, transporting immunoglobulins, induction of interferons, generation of neutrophils and activation of macrophages of the reticuloendothelial system



### HYPOLIPIDEMIC

lowering of cholesterol levels by suppressing its excess production at early stages of synthesis

## TECHNOLOGY OF ORGANIC EXTRACTION

Organic extraction - a widely used technological method for obtaining various active substances.

Organic extraction and multi-stage selective separation (up to 10 stages) enables to:

✓ isolate substances of targeted action from conifer green foliage

✓ obtain substances of pharmaceutical grade

✓ ensure absolute safety and naturalness of final products



INTELLECTUAL AND FINANCIAL RESOURCES – THE BASIS OF MODERN MANUFACTURING

## RECOMMENDED CONCENTRATION OF POLYPRENOLS IN «PRENOLIT» SUBSTANCE DEPENDING ON THE USE OF THE PRODUCT

20–40%



COSMETIC PRODUCTS

<75%



FOOD PRODUCTS

80%

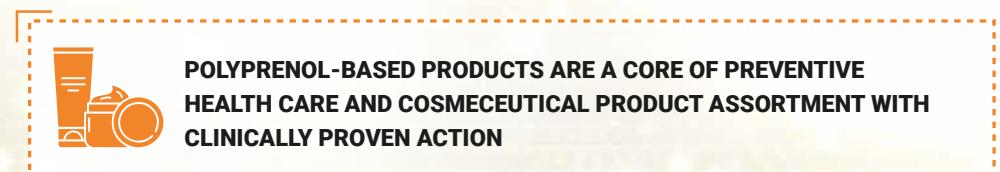


BIOLOGICALLY ACTIVE FOOD SUPPLEMENTS

95%



DRUGS



POLYPRENOL-BASED PRODUCTS ARE A CORE OF PREVENTIVE HEALTH CARE AND COSMECEUTICAL PRODUCT ASSORTMENT WITH CLINICALLY PROVEN ACTION

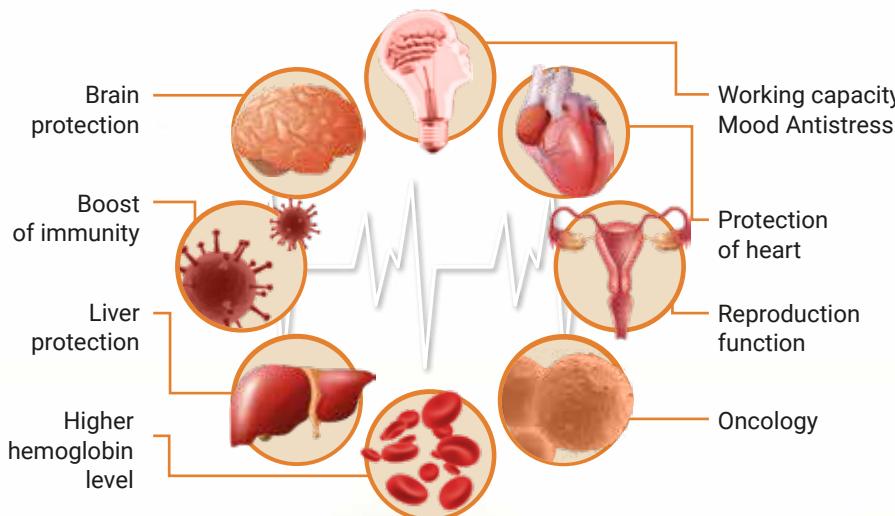
# FUNCTIONAL ACTION OF POLYPRENOLS IN PHARMACEUTICAL AND FOOD PRODUCTS



## ► POLYPRENOLS PROPERTIES

- Hepatoprotective
- Hypolipidemic
- Neuroprotective
- Nootropic
- Antioxidant
- Immunomodulatory
- Antidepressant
- Burn
- Antiulcer
- Oncoprotective
- Hemoprotective
- Androtropic
- Wound healing

## ► EFFECTS OF POLYPRENOLS AND CELL SAP OF SIBERIAN FIR ON THE BODY



CONSIDERABLE INVESTMENTS ALLOWED THE COMPANY TO OFFICIALLY PROVE THE BIOPHARMACEUTICAL AND PHARMACODYNAMIC PROPERTIES OF POLYPRENOLS IN EXPERIMENTAL AND CLINICAL STUDIES

## ► POLYPRENOLS ARE RECOMMENDED FOR CREATION OF PRODUCTS WITH THE FOLLOWING THERAPEUTIC AND PROPHYLACTIC PROPERTIES:



Neuroprotectors for prevention, treatment and rehabilitation of traumatic, toxic, vascular lesions of the brain and the peripheral nervous system.



Hepatoprotectors for prevention and treatment of hepatitis, fatty hepatosis, liver cirrhosis. To restore liver cells after taking medication.



Daily prevention and complex therapy in ARVI diseases.



Higher resistance to mental and psycho-emotional stress



Complex therapy, rehabilitation and prevention of cardiovascular diseases



Rapid recovery after illnesses

## ► RECOMMENDED DOSES

**Polyprenol concentrate is a raw material for development of biologically active complexes (BAD) and pharmaceuticals.**

As agreed by the Commission of the Customs Union of 07.04.2011 N 622 "On Amendments to the unified sanitary-epidemiological and hygienic requirements for goods subject to sanitary-epidemiological supervision (Control)", polyprenols are included in the list of essential components for the human body.

**Adequate consumption level of polyprenols –**  
10 mg/day, max –20 mg/day.

**Pharmacodynamics of polyprenols is dose-dependent.**

Doses, treatment duration and intervals between the therapy cycles depend on indications for use, state of human organism, and functioning of organs.



## FUNCTIONAL ACTION OF POLYPRENOLS IN COSMETIC PRODUCTS



Polyprenols included in the composition of cosmetic products are aimed at enhancing a regenerating and anti-inflammatory effects.

### ➤ SKIN CARE. ANTI-AGE AND REJUVENATION:

#### RECOMMENDATIONS FOR USE:

For improving mature skin status

Polyprenols function as anti-aging agents improving the body's ability to repair damaged cells, and generate healthy ones. Due to their special composition polyprenols are practically non-toxic ( $LD50>10,000$  mg/kg), do not cause allergic, irritating or any other unwanted reactions.

**Recommended dose - 0,1-1,0%**



#### PRODUCT PROPERTIES:

**Nutrition and moisture of the skin, reduction of small and deep wrinkles**

Coniferous components enhance the body's own ability to repair damaged cells, promote regeneration of healthy cells, protect against harmful environmental effects and daily stress, reduce inflammation, help to restore and tone the skin, and improve its elasticity.



### ➤ HAIR CARE NUTRITION AND REGENERATION OF HEAD TISSUES

#### RECOMMENDATIONS FOR USE:

For strengthening and stimulating hair growth

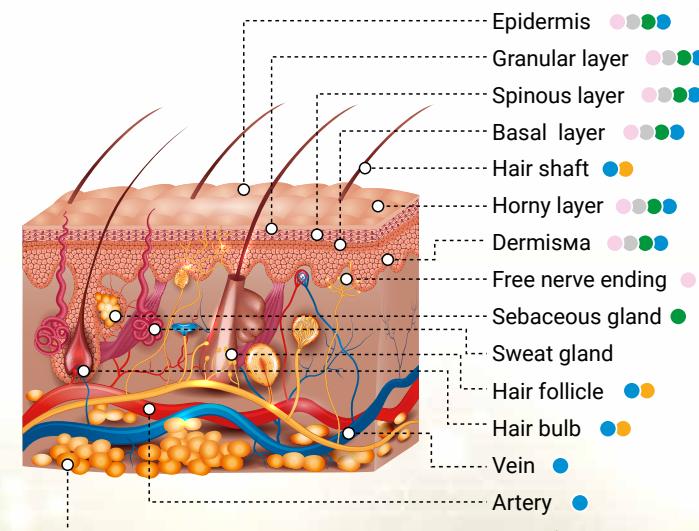
**Coniferous provitamin complex**  
(polyprenols 40-50 %)



**Recommended dose – 0,3%**

#### PRODUCT PROPERTIES

It regulates water-and –fat balance of the skin, enriches it with vitamins, helps to maximize blood flow to the skin, improving metabolism in it. The product contributes to strengthening hair and nourishing the roots with vitamins and other useful substances, stimulates hair growth , and eliminates dryness and irritation of the scalp.



● Provitamin coniferous complex  
● Oil-ethereal complex of Siberian fir  
● Coniferous chlorophyll carotene paste

● Cell sap of Siberian fir  
● Balsamic paste

# CLINICAL REASONING FOR INCLUDING IN THE LIST OF PHARMACEUTICAL AND FOOD PRODUCTS



## SOME CLINICAL TRIALS

- » Clinical application of polyphenol-based drug obtained from pine needles PICEA ABIES (L.) KARST in patients with dementia of the Alzheimer's type on the background of vascular brain damage  
*V. Soultanov, V. Roshchin, V. Agishev, I. Monakhova, A. Kulikov, T. Nikitina.*
- » The comparative study of the effect of the polyphenol drug "Ropren" obtained from conifer green foliage on key enzymes of cholinergic and monoaminergic types of nerve transmission  
*Academician V.Svidersky, A. Khovanskikh, E. Rosengart, S. Moralev, O. Yagodina, V. Gorelkin, I. Basova, B. Kormilitsyn V. Nikitina, V. Roshchin, V. Soultanov.*
- » The randomized double-blind study of the effectiveness and safety of a new plant preparation "Ropren" in diseases of the hepatobiliary system  
*V. Soultanov, V. Roshchin, E. Lapteva.*
- » Treatment of patients with alcohol and drug intoxication, complicated by chronic viral hepatitis B, C and HIV infection using the drug "Ropren"®  
*V. Soultanov, V. Agishev, I. Monakhova, I. Mokhovikov, A. Kulikov, V. Roshchin, T. Nikitina.*
- » Protective effect of a polyphenol-based drug obtained from conifer needles and gliatilin on key neurotransmitter systems in various parts of the brain on an experimental model of acute hepatic encephalopathy  
*V. Soultanov, V. Roshchin, E. Rosengart, T. Nikitina.*

## SOME PRE-CLINICAL TRIALS

- » Antitumor activity of "Ropren"®  
*L. Urazova, V. Soultanov, T. Kuznetsova, K. Nechaev, V. Roshchin, T. Nikitina*
- » The effectiveness of "Ropren"® on the model of traumatic brain injury  
*V. Soultanov, M. Zaitseva, V. Roshchin, T. Nikitina*
- » Effects of the drug "Ropren" on the model of prostatic hyperplasia in animals  
*V. Soultanov, A. Buryakina, N. Frolova, V. Roshchin, T. Nikitina*
- » Toxic subacute hepatosis with encephalopathy in rats: evaluation of the protective effects of "Ropren"  
*P. Shabanov, V. Soultanov, V. Roshchin, T. Nikitina, A. Lebedev, E. Bychkov, S. Proshin*
- » Effect of the plant polyphenol-based drugs on pathogenesis and outcome of influenza infection in white mice  
*V. Sukhinin, V. Soultanov, V. Zarubaev, V. Roshchin, T. Nikitina, D. Vedernikov*

# CLINICAL REASONING FOR LISTING IN COSMETIC PRODUCTS

## » POLYPRENOLS. EFFECTS ON THE SKIN

Preclinical and clinical studies conducted at "Beauty Institute", V.G. Korolenko GKB №14, polyclinic "Venus Center", Moscow showed a positive effect of external use of polyphenols on healthy skin and on various skin diseases (psoriasis, atopic dermatitis, trophic ulcers, eczema).



When exposed to healthy skin, polyphenols stimulated the proliferation of fibroblasts, promoted skin renewal, effectively eliminated flaking, tightening, dry skin, and had a noticeable moisturizing effect.

In treatment of skin diseases, there were observed decreased erythema, infiltration and desquamation. Active scarring of ulcers was also noticed.



## MULTIFACTORIAL EFFECT OF POLYPRENOLS



**Vladimir Trusov**  
doctor, director of medical department

The leadership in the commercial production of polyprenols belongs to Solagift. The company's team of specialists have developed the technology for isolation polyprenols of pharmaceutical grade, and they have been currently studied to such an extent that it enabled the Russian scientists to create a polyprenol-based drug of 98% grade.

Many different drugs can be created on the basis of polyprenols, because their action is based on replenishing the dolichol deficiency, which occurs in acute and chronic inflammatory and degenerative diseases. Polyprenols are involved in the synthesis of the most important receptors of cells, the factors of the

immune system, neurotransmitters, growth factors, without which intercellular interaction is impossible, and, as a consequence, normal cell regeneration.

### Multifactorial effect

A person is a single integral system and deficiency of one of the units in this chain leads to dysfunction and imbalance of the entire system of the body as a whole.

For example, a metabolic disorder in the liver leads to intoxication, disturbances in protein synthesis, trouble with digestion, immune deficiency, etc. The imbalance of these processes pulls the following links in the development of pathologies and a person is already diagnosed with brain encephalopathy, toxic heart damage, various liver diseases. The absence or decrease in the function of protein synthesis leads to impaired regeneration, and the cells are not restored.

The uniqueness of polyprenol-based drugs is based on the effects of regulation of neuroendocrine interactions. That is, such a drug acts at the tissue-organ level, effecting regulation of the cell differentiation.

### Regeneration – basis of metabolism

The regenerating organs of the human body include those that bear the greatest functional load: the liver, skin, nervous tissue, the organs of the reproductive system. Yet the liver is definitely a leader. It is well known fact that in about six months it renews its cellular composition, due to stem cells between the hepatic tubules. This is vital, since the liver is a powerful cleansing station and all toxic substances are disposed in this organ.

### Innovation

It's important for a hepatoprotective drug not only to "patch" the membrane of the damaged hepatocyte, as it happens with the most common drugs of this class, but also to regulate the process of cell regeneration. This is especially important in case of simultaneous damage of a large number of hepatocytes, as in viral, alcoholic and toxic hepatitis occurring against the background of chemotherapy in cancer patients.

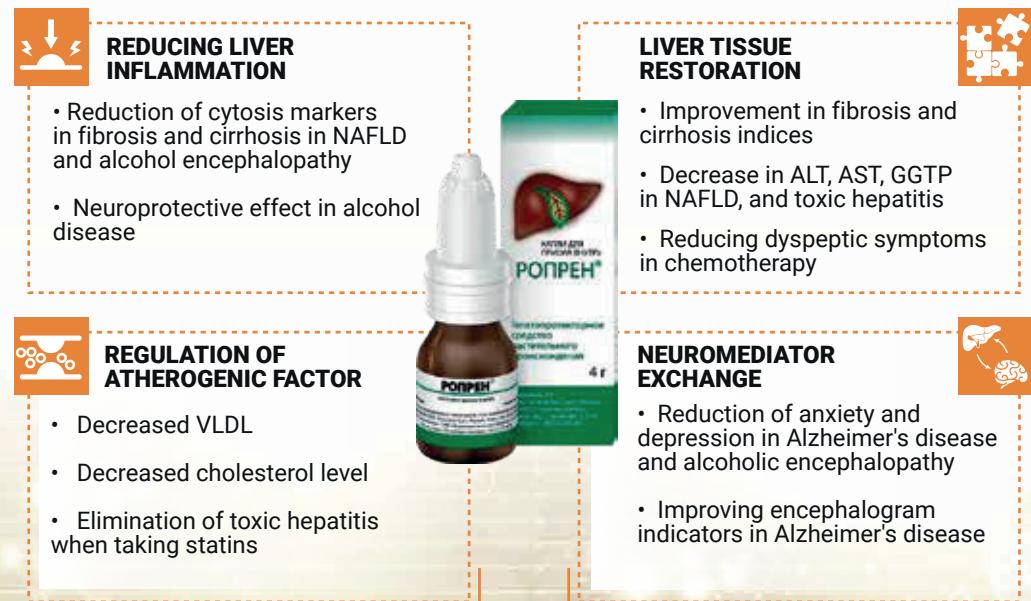
A new class of hepatoprotectors has been developed on the basis of polyprenols. A hepatoprotector of this class allows restoration of deeply damaged hepatocytes, showing its effectiveness even in progressive cirrhosis that was proved by clinical trials. There have not been any similar drugs in the world yet.

## «ROPREN»

In 2007 the Russian group of companies including the company **Solagift** registered the first polyprenol-based drug Ropren of pharmaceutical grade as a hepatoprotector for prevention and treatment of liver diseases. Preclinical and clinical trials were successfully carried out in various leading medical centers and institutes in Russia, Canada and Australia.

Clinical trials have confirmed a powerful hepatoprotective effect of the drug "Ropren", which stimulates protein synthesis, accelerates regeneration of damaged hepatocytes, and enhances an antioxidant defense system of the body. It normalizes the content of enzymes, actively affects lipid, fat, and protein metabolism.

The effect of the drug is aimed at stimulating the reparative and regenerative processes in the liver, increasing stability of the organ due to the membrane stabilizing, antitoxic action, and reducing oxidative load on the liver. Based on the research data, there was obtained a patent, where "Ropren" has been claimed as a stimulator of the processes of natural liver regeneration. A hepatoprotective effect in toxic drug hepatitis arising from the use of statins, chemotherapy of cancer was shown. Along with hepatoprotective effect, additional therapeutic properties of Ropren are significant - the ability to effect the organs of the peripheral and central systems. Thus, in the treatment of alcoholic hepatitis, decrease in the severity of polyneuropathy and depression were noted in. The positive results of using the drug in Alzheimer's disease are described.



THERE ARE CONTRAINDICATIONS. PLEASE, READ THE INSTRUCTIONS BEFORE USE. License FS-99-02-005105 of 09.12.2015 R No. LSR-001521/07



# PRENOLIT

## FOOD CONCENTRATE

Obtained from coniferous organic extract by using multi-stage selective purification and chromatographic separation. The concentrate is high in polyprenols and is an active ingredient for creating biologically active complexes and premium class functional foods.

CLINICALLY PROVEN  
EFFECTIVENESS OF  
POLYPRENOLS



### POLYPRENOLS ACTION:

- Hepatoprotective action
- Antioxidant activation
- Normalization of lipid level
- Boost of immunity
- Antidepressant
- Withdrawal regression

### Polyprenols content:

«Food concentrate «Prenolit – 85 %»  
«Food concentrate «Prenolit – 90 %»

STO 82638809-003-2018

Type of package: glass or plastic  
container 10 ml - 5 l

### RECOMMENDED FOR THERAPEUTIC AND PREVENTION PRODUCTS AIMED AT:

- Protection of the liver, heart and brain
- Recovery of liver cells after taking medicine
- Daily prevention and complex therapy of acute respiratory diseases
- Prevention and complex therapy of cardio-vascular diseases
- Rapid recovery after diseases
- Increasing resistance to mental and psycho-emotional stress



### Recommended dose:

Adequate level of polyprenol consumption according to EurAsEC -

10 mg/day,  
max - 20 mg/day



**Composition:**  
Polyprenols,  
carotenoids ( $\beta$   
carotene)



### Price

\* The product being especially valuable for pharmacy, the price is formed depending on the product purity grade, dollar exchange rate, and country of delivery

# ABIEPRENOLS 10

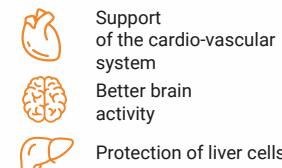
## HIGH GRADE POLYPRENOL CONCENTRATE

NEURO-, CARDIO-, HEPATOPROTECTOR AND IMMUNOSTIMULANT



CLINICALLY PROVEN  
EFFECTIVENESS OF  
POLYPRENOLS

10mg of polyprenols  
in a capsule



### COMPLEX ACTION OF POLYPRENOLS:

- Protection of the liver, heart and brain
- Daily prevention and complex therapy of acute respiratory diseases
- Recovery of liver cells after taking medicine
- Prevention and complex therapy of cardio-vascular diseases
- Rapid recovery after diseases
- Increasing resistance to mental and psychoemotional stress



**Recommendations for use:** for adults 1 capsule 2 times a day  
with meals during 1 month.

**2 capsules (recommended daily dose) provides:**

Name	mg	% of RDC
Polyprenols	17,4	174*

\*Не превышает верхний допустимый уровень потребления  
согласно ЕврАзЭС.

**Nutritive value 100 g:** carbohydrates – 0,  
proteins – 26 g, fat – 58 g, sugar alcohol – 14 g

**Energy value 100g:**  
660 kcal / 2760 kJ

### Contraindications:

intolerance to components, pregnancy, period of lactation.  
Recommended to consult a doctor before use



**Composition:**  
polyprenols, additive: refined sunflower oil, gelatin (carrier), glycerine (agent), food supplement «Grindox 539», lecithin (E322), rapeseed oil, ascorbyl palmitate – liposoluble form of vitamin C (E304), natural concentrate of tocopherol compound (E306)

TU 10.89.19-020-82638809-2017

STATE REGISTRATION CERTIFICATE RU.77.99.11.003.E.004746.11.17 of 08.11.2017

## SUBSTANCES WITH SYNERGETIC EFFECT DERIVED FROM CONIFER GREEN FOLIAGE



-  Skin rejuvenation and regeneration
-  Improving cellular breathing and energy exchange
-  Restoration and strengthening of tissues

**Recommended dose:** 0,3 – 3,0%

### » PROVITAMIN CONIFEROUS COMPLEX

#### derived from Siberian fir and spruce green foliage using the selective organic extraction method

The natural coniferous complex can be effectively used as a biologically active component in premium class cosmeceutical and cosmetic products for face and body skin care and hair care as well as creams and ointments accelerating skin regeneration and healing effects and also in medical and prophylactic toothpastes



-  High cleaning power
-  Antibacterial and antifungal action
-  Higher regenerative potential of cells

### » CONIFEROUS BALSAMIC PASTE

#### derived from Siberian fir green foliage using the organic extraction method

Broad spectrum coniferous substance. Recommended as an ingredient for complex hygienic, medical and preventive toothpastes, facial cleansing wash, shower gels, shampoos with a pronounced antibacterial and deodorizing effect.

**Recommended dose:** 0,2 – 0,5%



-  Boost of immunity
-  Increase of working capacity
-  Higher hemoglobin level

**Recommended dose:** 0,3 – 0,4%

preventive effect (dilute 1-1,5ml in 150-200ml of drinking water or juice).

Adequate consumption level of iron according to EurAsEC – 14 mg/day

1 g of Cell sap of Siberian fir contains not less than 1,25 mg of iron ( 8,9 % of ACL).

### » CONIFEROUS COMPLEX CGNC

#### FOOD CONCENTRATE



#### Obtained from fresh pine and spruce green needles using organic extraction method

Recommended for production of biologically active food supplements and functional food (drops, sweets, lozenges, pastilles with local action). The product has antibacterial, antiviral and antifungal effects.

-  Activation of immunity
-  Protection from infection
-  Improvement and recovery of digestive functions

**Recommended dose:** 0,03% – 0,05%

- For BAD (a source of chlorophyll and its derivatives, carotenoids). Adequate level of consumption of chlorophyll and its derivatives according to EurAsEC –100 mg/day. 1g of coniferous complex CGNC contains 6–12mg of chlorophyll and its derivatives (6–12% of ACL). Adequate level of consumption of carotenoids according to EurAsEC –5 mg/day. 1g of coniferous complex CGNC contains 0,25–0,40 mg of carotenoids (5–8%) of ACL.
- For functional products (drops, sweets, lozenges, pastilles with local anti-inflammatory and antibacterial action)



-  Protection from viruses
-  Analgetic and anti-inflammatory action
-  Effective relaxant for SPA and aromatherapy

### » OIL-ETHEREAL COMPLEX OF SIBERIAN FIR

Carbon dioxide extract of Siberian fir

Obtained from Siberian fir green foliage using the subcritical liquefied carbon dioxide extraction method

Recommended as an ingredient for production of toothpastes, mouthwash, soap, shower gel, shampoo, face and body creams, foot cream, products for inhalation, rubbing-in, aromatherapy, bath and sauna.

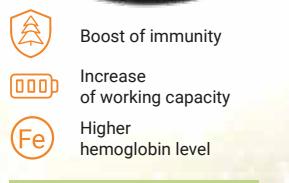
**Recommended dose:** 0,1% – 0,5%



### » CELL SAP OF SIBERIAN FIR CARBON DIOXIDE EXTRACT

#### Obtained from Siberian fir green needles using carbon dioxide extraction method

Recommended for production of biologically active food supplements and functional food (sports drinks, dietary and anti-age nutrition) as general health improving and immunomodulating product, and also for prevention of iron-deficient states.



**Recommended dose:** 0,3 – 0,4%

preventive effect (dilute 1-1,5ml in 150-200ml of drinking water or juice).

Adequate consumption level of iron according to EurAsEC – 14 mg/day

1 g of Cell sap of Siberian fir contains not less than 1,25 mg of iron ( 8,9 % of ACL).

### » CONIFEROUS CAROTENE-CHLOROPHYLL PASTE ORGANIC EXTRACT

#### Derived from pine and spruce green foliage using the organic extraction method

Recommended as an ingredient for production of toothpastes, soap, shower gels, facial cleansing wash, shampoos, bath aroma, lotions, tonics, face and body creams, foot creams, aftershave.

**Recommended dose:** 0,3% – 3,0%



-  Anti-microbial
-  Anti-inflammatory action
-  Wound healing and skin regeneration

**Solagift** – is an international company specialized in production of the unique highly effective substances and products with a broad spectrum of action that are derived from green conifer needles under the patented technologies. The company's team of scientists have developed and then implemented the innovative methods of extracting "live elements" of conifer needles, as well as identified and proved their phenomenal adaptive properties for the human body.

**The main focus of the assortment** – is prevention products, natural adaptogens and immunomodulators of a new generation to maintain health, improve the quality of life and active ageing. The coniferous concentrates obtained by using the carbon dioxide and organic extraction methods have antimicrobial and anti-inflammatory properties and are recommended for use in the pharmaceutical, food, cosmetic and agricultural industries. They are the active components for development of medicinal agents, biologically active food supplements, and functional food products exhibiting a synergistic effect.

**Solagift is the first and only commercial production of plant polyprenols in Russia.** Polyprenols are potent natural bioregulators derived from fresh Siberian fir needles and twigs. In 2011, polyprenols were officially included in the list of vital and essential substances for human health. As a result of clinical trials, their hepatoprotective, anti-sclerotic, immunomodulating, neuroprotective and oncoprotective properties have been proven.

## RESIDENT OF THE SPECIAL ECONOMIC ZONE



Own eco-production  
according to BRC Global  
Standards for Food Safety



### PRODUCT INFORMATION:

[market.solagift.ru](http://market.solagift.ru)

Online shop

[www.solagift.ru](http://www.solagift.ru)

[www.bioeffectives.com](http://www.bioeffectives.com)

[www.prenolica.com](http://www.prenolica.com)



Solagift Ltd. 8 prospekt Razvitiya,  
office 474, Tomsk, Russia, 634055,



+7 (3822) 70-16-43, 70-16-44



[sales@solagift.ru](mailto:sales@solagift.ru)

Your consultant on effective product use