Ametis JSC was founded on June 25, 1998 in Blagoveshchensk, Amur region. All activities of the company are submitted to one aim: to create the high-tech manufacturing enterprise by complex processing of Dahurian Larch wood for the purpose of unique natural substances extraction.

Ametis JSC manufactures and markets Dihydroquercetin extract for nutritional, food, cosmetic industries, as well as for animal husbandry.

The annual volumes of manufactured Dihydroquercetin extract exceed 11 tones and arabinogalactan – 80 tones, which places Ametis JSC as the leading manufacturer and supplier of these extracts in Russia.

Along with the main substances – Dihydroquercetin extract and Arabinogalactan, Ametis JSC manufactures other Dahurian larch tree extracts such as larch oil and resin under the trade mark “Lavitol”, as well as feed for animals: Ecostimul-1 and Ecostimul-2, and premixes used in cosmetic and food industries.

Ametis JSC supplies the produced substances to companies that produce biologically active food supplements, foodstuff, cosmetics, etc.
COMPANY’S HISTORY

The main stages of the company’s history

1998 – The company’s foundation

September 1, 2000 – New office location due to the expansion of business activity

December 2001 – Building of the Dihydroquercetin (Taxifolin)-manufacturing facility

December 23, 2003 – The first batch of dihydroquercetin was produced

July 2004 – Production of Larch oil was established

December 2004 – The company received the State Registration Certificate for food additive “Lavitol food grade.”

January 2005 – Ametis Co., Ltd became a member of the Amur Commercial & Industrial Chamber of Commerce

November 9, 2005 – The company received a certificate for trademark (service mark 297930 “Lavitol”)


December 2005 – Rogachev, I.A., the member of the Council of Federation of Amur Region (the ex-ambassador of the Russian Federation to China), visited the manufacturing facility of Ametis

May - June 2006 – The company participated in the annual exhibition “AmurExpoForum 2006”. The enterprise received the Gold Medal awarded by the Amur Fair

January 2007 – Ametis JSC received the Sanitary and Epidemiological Conclusion, the Certificate of Conformity for Larch oil “Lavitol”

April 2007 – Ametis JSC received the Technical Specifications, Certificate of the State Registration, Sanitary and Epidemiological Conclusion for “Lavitol (Dihydroquercetin)”

May 2007 – Ametis JSC received the first place in the regional competition “The best small-scale enterprise in the Amur Region for its business activities in 2006”.

Ostronkov, V.S., the Chief Executive Officer of “Ametis” JSC was nominated “The best employer of Blagoveschensk city” in the annual regional nomination in the sphere of production

June 2007 – Ametis JSC received the Technical Specifications, Sanitary and Epidemiological Conclusion, and the Certificate of Conformity for Larch resin “Lavitol”

November 11, 2007 – Ametis JSC received the certificate ISO 9001:2001, demonstrating the fulfillment of all requirements appointed by international standards

December 2007 – Ametis JSC received the Sanitary and Epidemiological Conclusion and the Certificate of Conformity for the bioactive food supplement “Laviocard+”

January 2008 – Ametis JSC received an award presented by the Ministry of Economic Development & Foreign Relations for the best innovative project realized on the territory of Amur Region “Experimental-industrial line of Larch processing”
COMPANY’S HISTORY

The main stages of the company’s history

May 26, 2008 – The President of the company participated in the plenary meeting of the All-Russian Forum “Small-scale and average business as the basis of social and economic development of Russia in XXI century”, held in Moscow. He represented interests of small-scale businesses located in the Russian Far East. At the forum, Mr. Lashin delivered a speech “Arrangement of liquidation of administrative barriers by realization of innovative projects in Russia from a business owner’s point of view”

August 2008 – Ametis JSC received the Certificate of Conformity in accordance with the Voluntary Certification Program “Mark of the Year” for “Laviocard+.” Ametis JSC began the production of the bioactive food supplement “Laviocard+”

September 30, 2008 – Boris Gryzlov – the current Speaker of the State Duma (the Russian Lower House) and one of the leaders of the largest Russian political party “United Russia” visited the facility and expressed his appreciation of the company’s activity

January 24, 2009 – The company received the Certificate of ISO 9001:2000 + HACCP, demonstrating the fulfillment of the international requirements for quality management and food safety

May 2009 – Ametis JSC was awarded the first place in the regional competition “The best small-scale enterprise in Amur Region” for its business activities in 2008

June 2009 – Ametis JSC received the registration documents for manufacturing the bioactive food supplement “VitaLAG”

June 2009 - The production analytical laboratory of the enterprise is accredited by the accreditation system of analytical laboratories (centers) for the technical competence in determination of the dihydroquercetin content (Accreditation Certificate No ROCC RU.0001.517430)

September 2009 – Ametis JSC produced the first batch of “Lavitol (Dihydroquercetin)” with the highest degree of purification – more than 99%

August 2010 – Ametis JSC was nominated as one of the winners in an open competition “Assistance Fond for the development of a small-scale enterprise in the scientific and technical sphere”. Ametis JSC received the Certificate of ISO 9001:2008 including HACCP.

November 2010 - Ametis JSC received the Certificate of ISO 9001:2008 including HACCP, demonstrating the fulfillment of the international requirements for quality management and food safety

July 2011 – Ametis JSC received a certificate for trade mark (VitaLAG)

November 2011 - Ametis JSC is the laureate of the federal program “100 best products in Russia 2011”

March 11-15 2012 - A poster on the safety and efficacy of Larch tree-derived dihydroquercetin, manufactured by Ametis, JSC was presented on the 51st Annual Meeting of the Society of Toxicology (SOT), held in San Francisco, California, from March 11-15, 2012

April 2012 - Ametis JSC is among the winners of the investment competition “Annual Public Award- Regions — Sustainable Development”

Key Dates

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<th>Year</th>
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| 2009 | Ametis JSC was awarded the first place in the regional competition “The best small-scale enterprise in Amur Region for its business activities in 2008”. Ametis JSC produced the first batch of “Lavitol (Dihydroquercetin)” with the highest degree of purification – more than 99.5%, the production analytical laboratory of the enterprise is accredited by the accreditation system of analytical laboratories (centers) for the technical competence in determination of the dihydroquercetin content (Accreditation Certificate No ROCC RU.0001.517430). Ametis JSC received self- affirmed GRAS (Generally Recognized as Safe) status of “Lavitol (Dihydroquercetin)”.
| 2010 | Ametis JSC was nominated as one of the winners in an open competition “Assistance Fond for the development of a small-scale enterprise in the scientific and technical sphere”. Ametis JSC received the Certificate of ISO 9001:2008 including HACCP.
| 2011 | Ametis JSC is the laureate of the Federal Program “100 best products in Russia - 2011”.
| 2012 | Ametis JSC is among the winners of the investment competition «Annual Public Award- Regions — Sustainable Development» |
“Ametis” JSC is the largest manufacturer of Dihydroquercetin in the world with an annual production of more than 11 tons and is the second largest manufacturer of arabinogalactans.

Dihydroquercetin

Ametis JSC manufactures Dihydroquercetin used for different purposes:

- **Raw material “Raw Lavitol”** is used to extend the shelf life of oils, fuels, varnishes, paints and other technical materials; and to produce the plant growth stimulant “Larixin”

- **“Lavitol (Dihydroquercetin)”** is a raw material for manufacturing of biologically active food supplements, medicine, and foodstuffs

- **“Cosmetic Lavitol”** is a raw material for manufacturing cosmetic products

“Lavitol (Dihydroquercetin)”

“Lavitol (Dihydroquercetin)” is used in both the food and pharmaceutical industries.

The use of Dihydroquercetin in food products is determined by its ability to reduce oxidative reactions and to strengthen capillaries. Utilization of these properties can be beneficial in two directions: a) as an antioxidant, Dihydroquercetin can reduce lipid peroxidation, with the consequent prolongation of food products’ shelf life; and b) because of its capillary-strengthening properties, Dihydroquercetin can be used for functional products that are aimed at enhancing health. In the food industry, Dihydroquercetin is used in dairy products, meat products, alcoholic and non-alcoholic beverages, confectionary products, and products of functional nutrition.

Because of its antioxidative and capillary-strengthening properties, Dihydroquercetin is commonly used to manufacture food supplements and remedies. Dihydroquercetin has a wide range of health-enhancing activities and properties:

- **Antioxidant activity**—blocks and neutralizes free radicals
- **Cardio-strengthening activity**—strengthens the capillary walls, enhances the blood flow, helps promote healthy cholesterol levels
- **Immune system enhancing activities**—enhances the immune system and supports its ability to fight inflammation
- **Liver-enhancing activity**—promotes the healthy liver by enhancing its detoxification function
- **Anti-radiation activity**—supports an organism’s ability to recover after exposure to toxic and radioactive elements

In spite of its relative novelty, the application of dihydroquercetin is widespread in the manufacturing of different categories of products. By the end of December 2011, over 300 products with dihydroquercetin were registered with the regulatory organs of the Russian Federation. Among these products, 150 were bioactive food supplements, over 40 food products, and approximately 80 cosmetic products.
In 2007 “Ametis” JSC extended its range of raw materials and began to produce arabinogalactans - a natural prebiotic derived from Dahuarian Larch. High-tech equipment and improvement of extraction and purification technologies have allowed for an increase in its manufacturing of up to 80 tons per year. Ametis JSC produces two types of arabinogalactans:

1) Arabinogalactans to be used for public consumption are the products with the highest purification degree manufactured according to the Technical Requirements TY 9325-008-70692152-08. They are used in the food industry (as thickener, stabilizer, emulsifier) as well as in the medicine for producing biologically active supplement, and drugs; and

2) Technical arabinogalactans according to the Technical Requirements TY 2455-006-70692152-2007 is intended for the paint and varnish, construction, agriculture, and veterinary industries.

Cosmetic Lavitol

“Ametis” JSC produces an effective cosmetic raw material under the trademark “Cosmetic Lavitol” that contains more than 88% dihydroquercetin. Dihydroquercetin has a wide range of pharmacological activity. Dihydroquercetin has antioxidant, capillary protective, anti-inflammatory, irradiation protective, and antiviral effects. All these activities support the use of Dihydroquercetin in the cosmetic industry.

Dihydroquercetin is a powerful antioxidant of a plant origin that can protect cells from the harmful effects caused by the excessive free radicals. Moreover, Dihydroquercetin inhibits the oxidation process in cosmetic products rich in oxidation-prone unsaturated fatty acids. Because of its antibacterial and anti-inflammatory properties, Dihydroquercetin is used in cosmetic products intended for skin problems. Such cosmetic products featuring Dihydroquercetin offer a soothing effect to the inflamed and/or irritated skin and give the skin a healthier appearance. Acting at the cellular level, Dihydroquercetin strengthens capillary walls, increases their tonus, stimulates the cellular metabolism, and protects the skin from UV-radiation. Thus, topical cosmetic products featuring Dihydroquercetin smooth the skin, and protect it from negative environmental impacts.

Lavitol - Arabinogalactan

In pharmaceutical industry arabinogalactans are used in two directions:

1) As an adjuvant
Arabinogalactans have membrane tropic properties and could be used as a carrier for drugs. Arabinogalactans help to increase the solubility of hardly soluble substances. Arabinogalactan is a dietary food supplement that has a wide spectrum of biological activity including gastroprotective and immune-stimulating activities. Arabinogalactan as a carrier that can significantly extend the spectrum of composite drug forms and increase their effectiveness. Arabinogalactan is also used as a binding nontoxic agent for tabletting drugs with a high stability. Arabinogalactan is used for increasing the blotting capacity of pharmaceutical compounds with low bioavailability. Having dispersive and defloculating properties, arabinogalactan is used as an emulsifier and stabilizer of emulsions.

2) As an independent compound
Arabinogalactan can be used as the main active ingredient in dietary supplements, intended to enhance and support the cardiovascular, respiratory, gastrointestinal, and immune systems.
Larch Resin

Larch resin “Lavitol” is a by-product derived from Dahurian Larch by a combined processing method.

Larch resin “Lavitol” consists of hydrocarbons, carbonyl compounds, primary diterpene-alcohol, microelements, phenocarboxylic and fatty acids, as well as Dihydroquercetin.

Due to the unique chemical composition, Larch resin has anti-inflammatory, antimicrobial, and wound healing properties. Larch resin was shown to be beneficial in the treatment of inflammatory processes in the oral cavity (paradontosis). Larch resin is recommended as the basic compound of hot compresses and ointments intended for prevention of upper respiratory infection and of joint diseases. In addition, turpentine, derived from the larch resin, is used in plasters and ointments for treatment of rheumatism and gout. Larch resin is widely used as one of the ingredients in creams, lotions, mascara, lipstick, lip gloss, etc. Having the unique regenerating properties, Larch resin protects the skin and lips from damaging ultraviolet rays of sun.

In the chemical industry, larch resin is used in the manufacturing of varnishes, pitch oils, sealing wax, resins, etc.

Larch Oil

Larch oil “Lavitol” is a by-product derived from Dahurian Larch by a combined processing method.

The chemical composition of Larch oil is complex and various. It consists of a blend of terpene hydrocarbons, resin acids, phytosterols, tocopherols, diterpene, fatty acids, and dihydroquercetin.

Larch oil has high antiviral activity and displays antimicrobial, wound-healing, and burn-healing effects. Larch oil “Lavitol” is an effective antioxidant because it contains up to 20% of dihydroquercetin.

In medicine, larch oil is used as the basic ingredient in ointments intended for external use. Due to its antioxidant activity, Larch oil is also used as substance that strengthens blood vessels and capillary walls, increases blood flow, and stimulates blood circulation.

Larch oil “Lavitol” can be used as an adjunct to complex therapy of such conditions as osteochondrosis, rheumatism, lumbosacral radiculitis, arthropathy (arthritis, polyosteoarthrosis), bronchitis, upper respiratory diseases, various skin diseases, injuries, and cuts.

In the cosmetic industry, Larch oil “Lavitol” can be used in gels and emulsions as well as in creams, shampoos, and balms.

“Ecostimul”
Feed for farming animals and birds featuring Dihydroquercetin.

“Ametis” JSC together with the leading scientists at the All-Russian Institute of Animal Husbandry are engaged in feeds development. Several experiments conducted on “Ecostimul” showed that its introduction into diets has increased the average daily growth of young animals, as well as the yield of milk and the productivity. It has normalized the animals’ metabolism and provided a prophylactic action in the control of ketogenesis in milk cows.
In August 2008, "Ametis" JSC began to manufacture the dietary food supplement "Laviocard+". "Laviocard+" contains the natural bioflavonoid Dihydroquercetin and one of the strongest antioxidants – Vitamin C. The distinctive feature of this combination is the patented extraction technology of Dihydroquercetin that guarantees high quality of the ingredient.

The combination of these two active compounds in "Laviocard+" favorably enhances the cardiovascular system by strengthening the blood vessels, supporting healthy blood viscosity and fluidity, and by enhancing the microcirculation.

**Effect of Laviocard+**

Strengthens blood vessels and capillary walls. Supports the elasticity of blood vessels. Restores blood microcirculation in the body. Supports healthy blood viscosity and fluidity.

Supports the structure and function of thrombocytes and red blood cells. Supports the immune function. Helps maintain healthy cholesterol levels. Protects neurons from oxidative stress, which is considered to be one of the main causes of brain pathologies.

Supports the structure and function of blood vessels in people with compromised blood sugar levels.

In December 2009 Ametis JSC formulated and began to manufacture the dietary food supplement "VitaLAG", intended especially for persons with the compromised immune system and gastrointestinal tract. In addition to Arabinogalactan, "VitaLAG" also features Dihydroquercetin – a powerful antioxidant of natural origin. The combination of these two ingredients allows for the enhancement of health of the gastrointestinal tract and the immune system.

**Effect of VitaLAG**

Dietary supplement "VitaLAG" can support health of people with:
- Compromised gastrointestinal system;
- Compromised immune system.

It can also be used:
- To support the gastrointestinal system.
- To support the cardiovascular system.
COMPETITIVENESS

Competitive advantages of Ametis JSC

- Has passed the State Registration for the manufacturing of all products, produced by Ametis JSC;
- Has its own patented technology for the extraction of Dihydroquercetin (Patent RU 2330677 C1 and Patent RU 2435766 C1 "Method of Dihydroquercetin production);
- The production is based on the own stump purchasing and larch processing with further extraction of dihydroquercetin;
- Dahurian larches that Ametis JSC uses as a raw material, grows in ecologically clean areas of the Amur Region. According to the All-Russian Non-governmental Organization “Green Patrol,” Amur Region takes the 6th place of 83 in the ecological rating among the Russian regions;
- High volume production. Ametis JSC is the largest dihydroquercetin manufacturer in the world with an annual capacity of more than 11 tons and is the second largest producer of arabinogalactan with an annual capacity of 80 tons;
- The dihydroquercetin content in produced products varies from 70% to 99.5% that could cover all demands of customers;
- Competitive price;
- Dihydroquercetin produced by Ametis JSC has very high antioxidant activity (ORAC_hydro varies from 15,155 up to 32,744 µmole TE/g), that surpasses the ORAC values of some well-known antioxidants;
- Is ISO 9001:2008 including HACCP certified for the production of food and biologically active additives and substances for biologically active additives;
- Is FDA registered facility;
- “Lavitol (Dihydroquercetin)” is listed in INCI (International Nomenclature of Cosmetic Ingredients);
- Ametis JSC received self-affirmed GRAS (Generally Recognized As Safe) status of “Lavitol (Dihydroquercetin)”. Ametis JSC is the first company received such status for dihydroquercetin;
- In 2009 Ametis JSC applied for registration “Lavitol (Dihydroquercetin)” as a Novel Food Ingredient and Novel Food Additive in the European Union (the registration is in process). Ametis JSC is the only Russian company that filed an application for dihydroquercetin registration in the EU.

Quality Control

The production analytical laboratory of the enterprise operates according to the requirements of the State Standard of the Russian Federation GOST R ISO 17025-2006 (the International Standard ISO/IEC 17025:2005) “General Requirements for the competence of testing and calibration laboratories.” The production laboratory is accredited by the accreditation system of analytical laboratories (centers) for the technical competence in determination of the dihydroquercetin content and it is the only laboratory in the Russian Federation capable of this task (Accreditation Certificate of the Research Laboratory No ROC RU.0001.517430).

Each product manufactured by “Ametis” JSC is regularly analyzed in the analytical laboratory of the enterprise as well as in the accredited testing analytical laboratory center based on the Public Health Federal State Establishment “Center for Hygiene and Epidemiology in Amur Region”. In addition, products manufactured by “Ametis” JSC are periodically tested by independent laboratories the Advanced Botanical Consulting & Testing, Inc., Tustin, CA, USA and by the PhytoLab GmbH & Co, KG, Vestenbergsgreuth, Germany. Each batch of the finished product is accompanied by a Certificate of Analysis and a chromatogram.

Each product meets the requirements regarding the levels of microorganisms, heavy metals, pesticides and radionucleotides that correspond to the requirements outlined in the Sanitary-Epidemiological Conclusion.