



 **Petrovax**

A COMPANY OF NOVEL
BIOPHARMACEUTICAL PRACTICES

Expanding access to cutting-edge therapies

Vision

Leading pharmaceutical innovations

Mission

Expanding access to cutting-edge therapies



Achievements

Development and market launch of original drugs:

Polyoxidonium[®], Longidaza[®], Grippol[®] vaccines

Expansion and provision of the National Vaccination

Program with in-demand vaccines against influenza and pneumococcus

Prevenar[®] 13

First localization of a multicomponent foreign vaccine in Russia

COVID-19 response

Clinical trials of the vaccine Convidecia[®], original drugs Polyoxidonium[®] and Longidaza[®]

Fabagal[®]

First synthesis transfer based on a cell line of an orphan drug in Russia

Areima[®]

Localization of full-cycle manufacturing of the immuno-oncology drug in Russia

Petrovax Pharm — a company of novel biopharmaceutical practices

A portfolio of original products, biosimilar, branded generic drugs and food supplements

Partnership with global pharmaceutical companies

Full-cycle manufacturing in accordance with the EAEU and EU GMP standards

One of the largest exporters of original medicines and vaccines

In-house
R&D
center

ISU ABXIS
Pfizer
Abbott
Adimmune

EU GMP
since 2012

The development strategy

160 mln doses
of drugs per year

30 years
in the pharmaceutical market

800+
employees

focuses on providing patients with in-demand vaccines and biotech drugs for the prevention and treatment of infectious, orphan, and oncological diseases

Development history

1996 — 2001

Foundation of Petrovax

Authorization of original medicinal products: immunomodulator Polyoxidonium® and the first adjuvant influenza vaccine Grippol®

Obtainment of the first patents for molecules and technologies in Russia and abroad

2001 — 2005

Opening of the first manufacturing facility for APIs and FDF

Market launch of the original enzyme drug Longidaza®

Partnership with Solvay Pharma (Abbott)

2011 — 2015

A project to localize the manufacturing of the pneumococcal vaccine Prevenar® 13 in cooperation with Pfizer

Obtainment of the EU GMP certificate, export of Polyoxidonium® to EU

Market launch of the cosmetic product Imoferaza®

A new investment strategy as a part of Interros Group

2022 — 2025

Launch of new products: Uronext®, VitaFerr®, Gialera®, Demefecil, Omegika®, Sandevit®, VitaFerr® Express, Venarel®

A project to localize the manufacturing of the orphan drug Fabagal® (agalsidase beta) in partnership with ISU ABXIS and the N.F. Gamaleya Center

A project to launch the oncological drug Areima® (camrelizumab) to the Russian market in cooperation with Chinese partner and N.F. Gamaleya Center

Launch of Forcenedo® — the first biosimilar of an original drug denosumab

A project to localize the manufacturing of meningococcal vaccine (CanSino)

2006 — 2010

Opening of the manufacturing complex in the Moscow Region

Manufacturing of influenza vaccine Grippol® Plus in syringes

Assignment of INN — Azoximer bromide for Polyoxidonium® by WHO

Launch of the line 2 (vials and ampoules)

2016 — 2021

Authorization of the first-ever in Russia tetravalent influenza vaccine Grippol® Quadrivalent

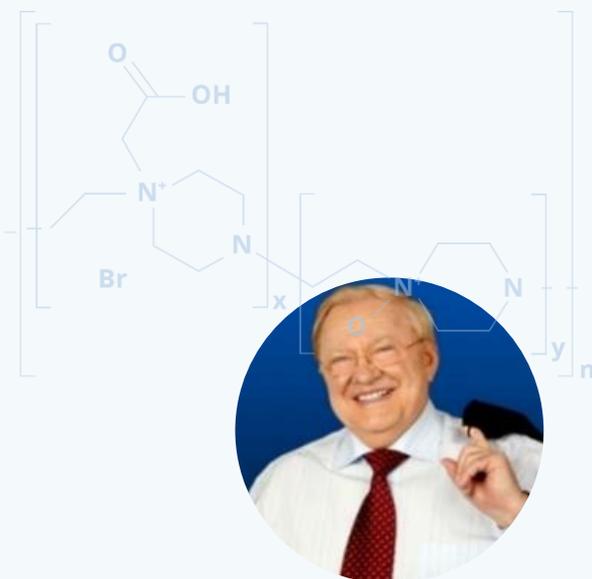
Manufacturing of thrombolytics Metalyse® and Actilyse® (Boehringer Ingelheim)

Market launch of Velson®, ARTNEO®

A large-scale program of clinical trials exploring Polyoxidonium® and Longidaza® for COVID-19 control

Launch of the lines 3 and 4 (APIs, FDF, injections)

Beginning of constructing a new biotech complex



Arkady Nekrasov, founder, Dr. habil. chem., professor, state awardee of the Russian Federation



Product portfolio

Original medicines

Polyoxidonium®, Longidaza®

Vaccines

Grippol® Plus, Grippol® Quadrivalent, Prevenar® 13, Mentetra*

Biotech products

Fabagal®, Areima®, Forcedeno®

Branded generics

Velson®, Demefecil, Reflamaid®

Food supplements

ARTNEO®, VitaFerr®, Uronext®, Sundevit®, Omegika®, Venarel®

Cosmetic products

Imoferaza®

*The vaccine is currently under regulatory review for approval in Russia

Original products

Polyoxidonium®

azoximer bromide

A complex original drug: immunocorrector, detoxicant, antioxidant used to treat and prevent infectious and inflammatory diseases



No.1

brand among immunomodulatory drugs with detoxification activity¹

TOP-3

(tablets) in brands with a turnover of >1 billion rubles by growth in packaging³

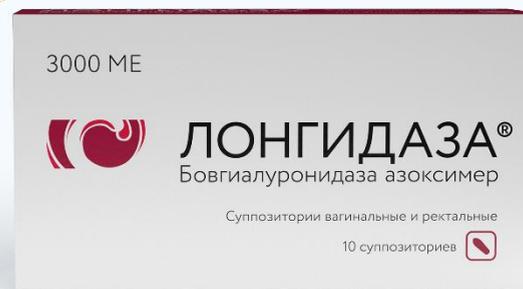
TOP-7

in market growth among 80 brands

Longidaza®

bovhyaluronidase azoximer

A modern enzyme drug applied to treat diseases associated with hyperplasia of the connective tissue (fibrosis)



No.1

in the market among the products used to treat diseases associated with inflammation and fibrosis

No.1

in gynecologists' recommendations for the treatment of adhesion-associated diseases²

Imoferaza®

A cosmetic cream for special care of scars



TOP-2

brand in the category of scar treatment products³

The only cream in the market containing immobilized hyaluronidase

Branded generics

Demefecil

dimetindene + phenylephrine

A combined antiallergic product for the treatment of acute, chronic and allergic rhinitis, acute and chronic sinusitis



The first only generic with large promotion in physicians and digital promotion

Velson®

melatonin

A drug for sleep normalization



No.1

in the awareness level among consumers¹;

TOP-2

among the products with melatonin

¹ Brand Pulse, Q3 2025

Reflamaid®

fosfomycin

Broad-spectrum antibiotic for the treatment of cystitis intended for the therapy of urinary tract infections



Food supplements

VitaFerr®

New generation iron enhanced with vitamins and folates for better assimilation



No.1

among iron dietary supplements¹
Winner of Beauty Awards 2022

¹ Alpha RM, october 2024 – september 2025

Venarel® Inosit

A specially selected combination of components to support the functional status of the female reproductive system



No.1

among 2025 dietary supplement launches²

² Prindex, Prescription Monitoring of Medicinal Products

Venarel® Prenatal

Vitamin and mineral complex for pregnant women



Food supplements

Omegika®

Special combination of crystal-clear concentrate of omega-3 acids in combination with vitamin K2 for health and beauty support



Sundevit®

Specially selected dosage of vitamin D3 in combination with vitamin K2



Uronext®

A complex product for urinary tract protection against infections



No.1

D-mannose supplement for protection and restoration of the urinary tract¹

¹ Prindex, Prescription Monitoring of Medicinal Products

Artneo®

A complex with native type II collagen and boswellic acids to support joint and spine health, recommended for use in the clinical guidelines of the Ministry of Health of Russia²



Nobel Prize-winning mechanism of action³

3

large studies

No.5

brand sales in packages and rubles among chondro-protectors (including medicines)¹

² Clinical Guidelines of the Ministry of Health of the Russian Federation Polyarthrosis. https://cr.minzdrav.gov.ru/view-cr/256_2

³ <https://www.nobelprize.org/prizes/medicine/2025/press-release/>

Vaccines

Grippol® Plus

[Inactivated] influenza vaccine + azoximer bromide
Trivalent inactivated subunit adjuvant influenza vaccine



Grippol® Quadrivalent

[Inactivated] influenza vaccine + azoximer bromide
The first-ever Russian tetravalent subunit adjuvant influenza vaccine



Prevenar® 13

A pneumococcal polysaccharide conjugated adsorbed thirteen-valent vaccine



The first transfer of the advanced vaccine manufacturing technology in Russia

Mentetra®*

A vaccine for the prevention of meningococcal infection caused by serogroups A, C, W, and Y; a polysaccharide conjugate with carrier protein CRM-197



Petrovax Pharm is completing the project to localize full-cycle vaccine production in Russia

*The vaccine is currently under regulatory review for approval in Russia

Grippol vaccines

- **1996 Grippol® (>188 mln doses)**
 first Russian inactivated influenza vaccine

- **2008 Grippol® Plus (>180 mln doses)**
 first Russian influenza vaccine without preservatives in the individual dose syringe.
 The vaccine is registered **in 8 countries**

- **2009 The H1N1 flu pandemic**

MonoGrippol® Plus (>15 mln doses)
 against H1N1 flu without preservatives in the dose syringe

- **2010 Grippol® Neo**
 the first and only Russian influenza vaccine based on MDCK cell culture without preservatives in syringe doses

- **2018 Grippol® Quadrivalent (>3 mln doses)**
 first Russian quadrivalent influenza vaccine without preservatives in the individual dose syringe 6 months and older

>400 mln

have been vaccinated with adjuvant Influenza vaccines Grippol over the past 25 years in Russia and foreign countries, of which more than 280 mln people have been vaccinated under the National Immunization Schedule



>10 years

The Grippol vaccines have ten years of experience in use in the Russian National Immunization Schedule (RNIS) and are exported to provide National Immunization Schedule in the Republics of Kazakhstan, Uzbekistan, Kyrgyzstan, and Belarus



Prevenar® 13

13-valent, adsorbed pneumococcal polysaccharide conjugate vaccine

2011

Launch of the technology transfer project for pneumococcal vaccine manufacturing

2014

Start of supplies to support the National Immunization Schedule of the Russian Federation

2015

Transition to full-cycle finished dosage form (FDF) manufacturing



>45 mln doses

over 11 years produced for the Russian market

56%

Reduction in pneumonia-related mortality among infants in their first year of life*



Manufactured by Petrovax as a full-cycle production of the finished dosage form in cooperation with Pfizer



For the immunization of children from 6 weeks of age and adults with no age limit



> 286 mln children vaccinated worldwide, used in 126 countries around the world

*<https://rosstat.gov.ru/compendium/document/13269>

Petrovax Pharm fighting meningococcus

2025

Completion of Phase III clinical trial in Russia
Manufacturing of the first validation batches

2026

Obtaining a manufacturing license
from the Russian Ministry of Industry and Trade
for vaccine production

Authorization of the vaccine in Russia

Full-cycle vaccine manufacturing in Russia,
including API



> 3 mln doses
of vaccines per year

> 3 bln rub
of investment in the project



Indicated for: children from 3 months
of age and adults up to 55 years



Protection against the most relevant
meningococcal serogroups A, C, W, Y



Unique purification technology
to enhance vaccination safety

Biotech: key projects

Fabagal®

agalsidase beta

An orphan drug for long-term enzyme replacement therapy in patients with Fabry disease



Areima®

camrelizumab

An immuno-oncology drug, monoclonal antibody, PD-1 receptor blocker



Forsedeno®

denosumab

The first in Russia biosimilar of denosumab. The drug is intended for the treatment of osteoporosis



Fabry disease therapy

2022

Licenses

in the Russian and EAEU territories with expansion efforts

2023

The drug authorization

in Russia¹

2024

A full-cycle manufacturing

in Russia starting from substance synthesis

2025

The first patients

received a locally manufactured product



First technological transfer in Russia, including synthesis based on a cell line of an orphan drug in collaboration with ISU Abxis and N.F. Gamaleya Federal Research Center for Epidemiology and Microbiology

Fabagal®

agalsidase beta

75 patients already receive Fabagal®

Goal — 100% access of Russian patients with Fabry disease to enzyme replacement therapy with Fabagal

High appraisal

of Fabagal® by Prof. Robert J. Desnick — global expert in medical genetics, developer of enzyme replacement therapy

Collaboration study

with Sechenov University to evaluate the outcomes of Fabry disease treatment in the setting of Russian clinical practice

The first batch

of the fully localized drug was launched on the market

¹ State Register of Medicinal Products: <https://grls.minzdrav.gov.ru/PriceLims.aspx?TradeName=%d0%a4%d0%b0%d0%b1%d0%b0%d0%b3%d0%b0%d0%bb&INN=%RegNumber=&OrgName=&Barcode=&OrderNumber=&OuterState=60&PageSize=&OrderBy=pklimprice&OrderType=desc>

Breakthrough in the treatment of nasopharyngeal, esophageal and lung cancer

2023

Marketing authorization
in the Russian and EAEU territories

2024

Drug authorization in Russia¹

2025

Technology transfer
of drug manufacturing to Russia

2026

Launch of the first localized batches
of the drug



Areima®

camrelizumab
monoclonal antibody, PD-1 receptor blocker

Over 33 clinical trials, including russia⁴

Over 300,000 treated patients worldwide

Included in the essential drug list (EDL),
recommended for inclusion in Clinical Oncology
Guidelines^{3,7}

Access to innovative treatment

for Russian cancer patients^{2,3}

New opportunities for patients

with nasopharyngeal cancer, for whom the first-line
therapy had previously been limited
to chemotherapy^{5,6}

Development of a technological platform

based on mRNA technologies for combination
cancer therapy in collaboration with
the N.F. Gamaleya NRCM⁸

2 bln rub

amount of investment
in the project

¹ State Register of Medicinal Products:

https://grls.minzdrav.gov.ru/Grls_View_v2.aspx?routingGuid=94c87547-6a97-47f8-b895-ca2a47493335

² <https://grls.rosminzdrav.ru/PriceLims.aspx>

³ <https://minzdrav.gov.ru/ministry/61/10/stranitsa-858/stranitsa-7920>

⁴ <https://clinicaltrials.gov/search?intr=Camrelizumab>

⁵ Clinical Guidelines of the Ministry of Health of the Russian Federation "Nasopharyngeal Cancer" 2024.

https://cr.minzdrav.gov.ru/preview-cr/535_2

⁶ Camrelizumab (CAPTAIN-1st): a multicentre, randomised, double-blind, phase 3 trial Lancet Oncol 2021; 22:

1162–74 Published Online June 23, 2021 [https://doi.org/10.1016/S1470-2045\(21\)00302-8](https://doi.org/10.1016/S1470-2045(21)00302-8)

⁷ Clinical Guidelines Index. Notice dated 14/07/2025 No. 2812 "Malignant Neoplasm of the Nasopharynx."

<https://cr.minzdrav.gov.ru/develop-clinRec>

⁸ https://petrovax.com/press_centre/news/2025/dvojnoj-udar-po-raku/

Osteoporosis treatment

April 2025

Received marketing authorization in Russia

June 2025

First supplies to the market

October 2025

Launch of the OsteoForce study

OsteoForce

a prospective observational study evaluating the efficacy and safety of osteoporosis treatment in routine clinical practice



Forsedeno®

denosumab

The first in Russia biosimilar of an original drug denosumab

Rights under the license agreement with AryoGen Pharmed (part of CinnaGen Group of Companies)

>10 thousand
patients

have already received innovative and accessible osteoporosis therapy in Russia

R&D Center

R&D center allows to carry out a full cycle of development and implementation of medicinal products



The company's investment program ensures the financing of advanced R&D projects:

Search for innovative molecules and conducting preclinical studies

In-depth study of the mechanism of action in terms of the pathogenesis of a corresponding disease

Proof of the safety and efficacy of drugs in preclinical studies

Development of quality control methods and manufacturing technologies

Conducting of preclinical studies in accordance with GCP standards

Introduction of innovative technologies, development and optimization of manufacturing processes

Petrovax Pharm is the holder of patents for molecules and pharmaceutical manufacturing technologies in Russia and abroad.

International clinical studies in 2020

International Multicenter Clinical Study of the efficacy and safety of the Convidecia® COVID-19 vaccine in cooperation with CanSino Biologics with participation of 40,000 volunteers

International Multicenter Phase 3 Clinical Study of efficacy and safety of the Polyoxidonium® in Complex Therapy of Patients with COVID-19

Full-cycle manufacturing in accordance with EAEU and EU GMP standards

The manufacturing processes include the synthesis of APIs, the production of sterile and non-sterile medicines, including immunological and biopharmaceutical drugs in various dosage forms

>2700 m²
area for expansion

>160 mln doses
Manufacturing capacity
of drugs per year



The pharmaceutical manufacturing and warehouse complex was opened in the Moscow region in 2008

1 Line

2 Line

3 Line

4 Line

Manufacturing medicines in pre-filled syringes

Manufacturing medicines for injection, including lyophilizates

Synthesis of APIs, manufacturing of soft and solid dosage forms

Manufacturing of injectable dosage form

Quality

Petrovax Pharm has been certified EU GMP (Slovakia) since 2012, confirmed in 2025



> 100 people
work in the quality service

The company has implemented and effectively operates a GMP certified pharmaceutical quality system (PQS), confirmed by international partners audits.

Quality control at all stages

Quality control of manufactured pharmaceutical products and vaccines is guaranteed at all stages of production, from the sampling of raw materials to the control of finished products



International standards

The pharmacovigilance system functions in accordance with international standards and Russian regulatory requirements to ensure medicine product safety surveillance



Approved suppliers

The company cooperates only with approved suppliers of raw and other materials



Development of cooperation

Strategic agreements with the N.F. Gamaleya NRCEM

for the development and manufacturing of oncology drugs, and for exploring the potential of combination treatment with mRNA-based biotherapeutics and camrelizumab

Agreement with Sechenov University

to conduct studies of biotechnological medicinal products for orphan diseases

Agreement with the Government of Moscow Region

on localization of meningococcal vaccine manufacturing at Petrovax Pharm facilities



manufacturing



study



localization

Global partnership

Collaboration with leading global pharmaceutical companies: localization and launch of in-demand vaccines and biotech drugs for the prevention and treatment of infectious, cardiovascular, orphan, and oncological diseases

Abbott
Grippol® Plus
(influenza vaccine)



Pfizer
Prevenar® 13
(pneumococcal vaccine)



Boehringer Ingelheim
Metalyse® (tenecteplase)
Actilyse® (alteplase)



Adimmune
Grippol® Quadrivalent
(influenza vaccine)



CanSino Biologics
(COVID-19 vaccine,
MCV vaccine)*



ISU Abxis
N.F. Gamaleya NRCEM
Fabagal® (agalsidase beta)



N.F. Gamaleya NRCEM
Areima® (camrelizumab)



CinnaGen
(AryoGen Pharmed)
Forsedeno® (denosumab)



* The vaccine is currently under regulatory review for approval in Russia

Global partnership



> **2** bln rubles

Export in 2025

> **14%**

Growth exports in packs across the CIS countries in 2025

> **12** countries of export

Longidaza® — No.1 in anti-fibrotic segment in Uzbekistan*

*IQVIA, Jan–Oct 2025 in RUB and packs



Export potential

Expansion beyond the CIS



Awards 2025



“MAN AND MEDICINE ”

“Socially responsible business”



“VEDOMOSTI IMPULSE”

Winner in the “Nation’s Health” category — Areima®



“PLATINUM OUNCE”

Competition win (Areima®)



SMART PHARMA AWARDS

Victory of Polyoxidonium® and Uronext®



MEDMEN AWARDS

“Company of the Year. Dietary supplements”

30 years
of successful
experience

 **Petrovax**



www.petrovax.com



TG Petrovax
Health



TG Petrovax
Life

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