2017

SAINT PETERSBURG CLUSTER OF MEDICAL AND PHARMACEUTICAL INDUSTRIES, AND RADIATION TECHNOLOGIES
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Highlights of the pharmaceutical companies, participating in the Cluster of Medical and Pharmaceutical Industries, and Radiation Technologies for the period 2015-2017

CJSC “BIOCAD” (BIOCAD)

2015

APRIL
- BIOCAD signed an agreement for cooperation with St. Petersburg Polytechnic University in the area of in-company staff training and development.

OCTOBER
- Being a participant of VIII St. Petersburg Innovation Forum, BIOCAD was awarded with St. Petersburg Government Prize “Best Innovative Product” for the creation of Algeron — a drug product to treat hepatitis C.

NOVEMBER
- BIOCAD completed the construction project for the new R&D center in St. Petersburg, with volume of investments amounted to 200 mln rub. The center comprises eight laboratories with a total area of 1 500 sq. m. Main goal — to develop innovative drugs to treat oncological diseases and hepatitis C.

DECEMBER
- BIOCAD arranged its first supply of Acellbia to Vietnam by quota, this allowed the company to enter the Asian market.

2016

JANUARY
- BIOCAD was certified for compliance with international GMP standards from ANVISA — the state inspection of Brazil. The certificate covers the release of Russian drugs based on monoclonal antibodies—rituximab, trastuzumab, bevacizumab. This has enabled the company to start exporting both to Brazil, and all over Latin America where ANVISA certificate is recognized.

FEBRUARY

MAY
- Ministry of Health of the Russian Federation registered pegylated filgrastim — an authentic BIOCAD drug product to treat neutropenia, a dangerous oncology complication with patients going through chemotherapy. The drug is currently available for Russian patients.

AUGUST
- BIOCAD was licensed for a full production cycle of chemical substances to manufacture drugs that will provide a full production cycle of 20 drugs, 15 of which are innovative. Medications are intended for oncological diseases therapy, hepatitis C, HIV infection, multiple sclerosis and other pathologies. The licensing audit resulted from production expansion — new production areas were opened in Moscow and St. Petersburg. The company invested over 300 mln rub. in the production, which now is a part of its Chemical Department and complies with international GMP standards. Reagent types are being developed at BIOCAD laboratories of its modern R&D center (St. Petersburg).

- BIOCAD received an annual quota for imports of the second — Avegry (bevacizumab) from the regulatory body of Vietnam. This enabled the company to further consolidate its position in the region and to start deliveries before the registration process is finalized.
BIOCAD and Karaganda Pharmaceutical Complex (Kazakhstan) concluded an agreement to implement a technological transfer of the full production cycle for rituximab, bevacizumab and trastuzumab biosimilars, as well as their distribution. This partnership is aimed at increasing the access to essential medicines among Kazakhstan residents. The contract value exceeded $100 mln.

BIOCAD obtained a registration certificate for the reproduced glatiramer drug acetate to treat multiple sclerosis. The drug is currently available to all Russian patients.

BIOCAD obtained a certificate of compliance with international standards for pharmaceutical production (GMP) from the FDA (Food and Drug Administration) of the Republic of the Philippines. It is the first step on the way of withdrawing a number of medications produced by BIOCAD in the Philippine market. A few years ago, BIOCAD concluded a distribution agreement with one of the drug sales leader in the Philippines, with contract value over $5mln. Sales will be launched after finalizing all registration procedures.

Ministry of Health of the Russian Federation registered a Russian biosimilar of interferon beta-1a to treat multiple sclerosis. The drug is currently available for Russian patients.

BIOCAD received a quota to supply bioethanol rituximab for oncohematological diseases to Vietnam for the second time. In q4 2017, the company intends to obtain permanent registration for the drug and to export it in unlimited quantities from Russia.

Bolivia has registered a rituximab biosimilar under the trade name "USMAL". It is the first BIOCAD medication registered in Latin America.

The Government of St. Petersburg and BIOCAD concluded an agreement on the construction project for a pharmaceutical complex in the industrial zone “Pushkinskaya”. The project makes provisions for the construction and organization of high-tech chemical production substances and ready-made dosage forms, as well as a preclinical research center. The project investment volume makes at least 3 bln rub., the production will provide 223 new employment opportunities. BIOCAD plans to construct manufacturing facilities for the chemical production of antitumor medical substances. The construction will start in 2017, project completion is planned for 2027, although the first drugs will be released already in 2020. The company plans to produce 18 drugs, five of which are second to none in Russia. The main nosologies are oncology and multiple sclerosis.

BIOCAD has registered in Nicaragua a rituximab biosimilar under the trade name "USMAL".

Centralized Control of Compliance with Drug Standards in India (CDSCO) approved for registration of a rituximab biosimilar produced by BIOCAD. First delivery is planned for q1 of 2018. The quality of Russian medications was confirmed by large-scale international clinical research, in India as well.

BIOCAD completed the clinical research program of the first Russian biosimilar for darbepoetin alpha preparation BCD-066 to treat anemia with patients suffering from chronic renal insufficiency and oncological diseases. Russian patients will presumably see the biosimilar at the end of 2018.

BIOCAD registered its second drug in Bolivia — a biosimilar for rituximab, under the trade name “INTERDUM”.

BIOCAD registered in Honduras a biosimilar for rituximab, under the trade name "USMAL".
GEROPHARM Group

2015

APRIL
GEROPHARM was certified for the compliance with Russian GMP standards.

JUNE
GEROPHARM started deliveries of Cortexin to Turkey according to the scheme of “private treatment” — provision of medical assistance according to the vital indications of a particular patient. In June 2015 Turkish FDA (Türkiye ilac ve Tıbbi Cihaz Kurumu) added the drug to the list of medicinal products funds authorized by Ministry of Health of Turkey to be imported into the country under the request of doctors for specific patients.

JULY
GEROPHARM entered a licensing agreement with Dong-A ST (Korea) for an exclusive development and promotion of a new drug to treat type II diabetes, according to which the company receives rights to sell DA-1229, developed by the Korean company Dong-A ST, on the territory of Russia, Kazakhstan and Ukraine. DA-1229 ranks as the class of drugs inhibitors of dipeptidyl peptidase (DPP-4), glyptins — drugs that reduce blood glucose for patients with type II diabetes mellitus.

SEPTEMBER
GEROPHARM obtained the Determination on state registration of medicinal product Pineamine and its inclusion in the State Register of Medicines for medical application. Pineamine is the original Russian prescription drug, developed to treat neurovegetative disorders with menopausal syndrome with females, if any contraindications to hormone replacement therapy or rejection to its conduct.

2016

JANUARY
GEROPHARM introduces the modern neuroprotective agent Rekogan, which has a wide range of therapeutic options: it is used for the therapy of ischemic stroke, restorative post-stroke period, acute and recovery period of craniocerebral trauma, cognitive and behavioral disorders in degenerative and vascular diseases of the brain.

MARCH
GEROPHARM introduces to the market a new original medication Pineamine, which is developed to treat neurovegetative disorders with menopausal syndrome with females, if any contraindications to hormone replacement therapy or rejection to its conduct.

VTB Bank opened GEROPHARM LLC, which is part of the GEROPHARM Group, financing part costs for the construction of a new modern pharmaceutical production in Pushkin district of St. Petersburg. Borrowed funds will be provided for the period of five years as non-renewable credit lines with outstanding limit of 1 bln rub.

JUNE
RDIF (RUSSIAN DIRECT INVESTMENT FUND) invested to PC “GEROFARM” Group to support the construction of a high-tech production complex of full cycle in St. Petersburg. New production capacity will enable the company to increase the production of medications significantly.

Government of St. Petersburg and PC “GEROFARM” concluded an investment agreement to implement a construction project in the industrial zone “Pushkinskaya” — a pharmaceutical complex for the production of insulin and insulin alternatives, and pharmaceutical substances and medications on their basis. PC “GEROFARM” is currently building the plant with design capacity as planned for 2018.

PC “GEROFARM” was awarded the “Development Award” in the nomination of “The Best Project in the Sectors Industry” at the St. Petersburg International Economic Forum. The company was announced a winner for the creation of production of biotechnological drugs in terms of import substitution.
A test run of the first stage of the PC plant “GEROFARM”, with total area of 14,000 sq. m., took place in "Pushkinskaya" industrial zone. Investments in the construction of the 1st and the 2nd stages amounted to 3.3 bln rub. The production is organized according to GMP quality standards, 90% of all the processes are fully automated. The plant will organize the production of active pharmaceutical substances for the original drugs to treat neurological, ophthalmic diseases and climacteric syndrome, as well as substances of genetically-engineering insulin and insulin alternatives. Industrial production of substances for the authentic medications will start in November 2017. The launch of the second production line for genetically engineered human insulin and insulin similar is scheduled for November 2018.

GEROFARM was declared the prize-winner for the “Enterprise of the Year-2016” held by the newspaper “Business Petersburg”, winning prizes in several nominations — "Modernization" for contribution to technological development and "Best Employer" for creating stimulating environment for the staff growth, as well as "Innovation" for the development of new products.

GEROFARM registered a new syringe-pen RinsaPen I, equipped with mechanism for easy and smooth injections. The design is mainly characterized by easy cartridge replacement, an enlarged indicator window, aimed at patients with impaired vision, as well as tactile and sound feedback during the installation, adjustment and injection. Indicator shows the remaining quantity of the drug, which allows to set the dose correctly up to the last unit. Reusable syringe-pens are currently delivered free of charge to all the regions purchasing insulin GEROFARM in cartridges.

LLC “STPC “POLYSAN”

2015

POLYSAN was certified for the compliance with the quality management and labor protection system of the enterprise according to the standards ISO 9001:2008 and OHSAS 18001:2007.

POLYSAN and Bayer signed the Strategic Partnership Agreement aimed at producing the Concern medications at the POLYSAN production facilities. In accordance with the contract, POLYSAN will issue Bayer contrast media, used for computer and magnetic resonance imaging, which, however, are not currently performed in Russia. The first stage will involve the full production cycle for Gadovist, Magnevist and Ultravist (except the production of active pharmaceutical substances).

POLYSAN entered the top 10 largest companies in terms of revenue according to the national rating "TechSuccess-2015".

POLYSAN was certified for successful completion of planned inspection performed by the State Service of Ukraine for Medicines for compliance with ST-N-MOG 42-4.0:2015 “Good Manufacturing Practices” (GMP). These are completely identical to the requirements of good manufacturing practices in the production and quality control of the Pharmaceutical Inspection Cooperation System (PIC/S), EU directives and WHO recommendations.
2016

**JANUARY**
- POLYSAN and biopharmaceutical company Pfizer concluded a contract for the production of three Pfizer medications at POLYSAN factory: authentic medication for the correction of dyslipidemia, a new tableted medication with the unique treatment mechanism for Rheumatoid arthritis and an antibacterial medication of oxazolidinones class.

**JUNE**
- POLYSAN and the Government of St. Petersburg signed an agreement on investment project to localize the production of Bayer and Pfizer medications in the POLYSAN plants: contrast substance, used in computer and magnetic resonance imaging, drugs to treat dyslipidemia, rheumatoid arthritis, infectious diseases, etc.

**SEPTEMBER**
- POLYSAN shipped the first supply of Reamberin to Bolivia. This was now possible due to the successful completion of registration procedures for “Reamberin” and obtaining permits for sales issued by the Ministry of Health of the Republic of Bolivia.

**NOVEMBER**
- POLYSAN launched a new production line for Bayer contrast media, used in computer and magnetic resonance imaging for diagnostic purposes. Start of commercial production is scheduled for 2018.

**DECEMBER**
- POLYSAN launched the production of a pilot series of Pfizer medications to lower blood cholesterol and reduce the risk of cardiovascular complications, for the treatment of rheumatoid arthritis and plaque psoriasis, as well as antibacterial drug for the treatment of nosocomial infections.

2017

**JANUARY**
- Project to modernize production capacities of the pharmaceutical factory POLYSAN was recognized as a strategic investment project of St. Petersburg, and POLYSAN, consequently, as a strategic investor of St. Petersburg. This status is assigned to companies that provide stable income to the city budget and contributing to socio-economic development of the city.

**JUNE**
- POLYSAN and North-West Bank of Sberbank signed an agreement on strategic partnership to finance investment projects aimed at modernizing domestic pharmaceutical industry and localizing the production of medications of international pharmaceutical concerns.

**AUGUST**
- POLYSAN completed a 2-year multicenter clinical studies of Cytoflavin — a solution for injections, in Vietnam. Studies involved over 300 patients and were conducted in 6 Vietnamese hospitals. The results were reviewed and adopted by the Scientific Council of Ministry of Healthcare in Vietnam. Cytoflavin showed high efficiency among patients who underwent ischemic stroke. High safety profile and good patient tolerance were also highlighted.

- POLYSAN started the construction of a modern scientific and technological center in St. Petersburg, with a total area of 4 844 sq. m. The project completion is scheduled for September 2018.
**JSC “PHARMASYNTEZ-NORD”**

**2017**

**MAY**
- PHARMASYNTEZ-NORD launched the first stage of the construction project at SEZ “Novoorlovskaya” in St. Petersburg. The plant total area makes 3,970 sq. m., with investments over 2.5 bln rub. The project will go through four construction phases. The plant is aimed at producing a wide range of modern anti-tumor preparations. PHARMASYNTEZ-NORD will also serve as the basis for various capacities to produce biopharmaceuticals, including monoclonal antibodies, effective for allergies as well as cold and other diseases. A second biotechnological site is currently under construction, as well. Plant production capacity is going to make: bottles of 6R — 18.75 mln per year, cartridges 3 mln — 18.75 mln per year, PZS — 41.25 mln per year, tablets — 200 mln per year, capsules — 200 mln per year.

**JSC “VERTEX”**

**2015**

**FEBRUARY**
- VERTEX became one of the first pharmaceutical companies in Russia to receive a compliance report of Ministry of Industry and Trade of Russia on alignment of its production sites with GMP manufacturing practices.

**AUGUST**
- VERTEX built the plant in a “Special Economic Zone St. Petersburg” on the site “Novoorlovskaya” and started the production of medications. The site’s capabilities provide a complete cycle from development to product packaging in various formats: tablets, capsules, ointments, sprays, creams, etc. Plant potential capacity makes over 100 mln packs of end product annually, with total area of over 20,000 sq. m. This is one of the largest production sites in the North-West region and Russia.

**DECEMBER**
- VERTEX was awarded an honorable diploma in the nomination “Import Substitution”. It is the first industrial award of the Government of St. Petersburg “Made in St. Petersburg”.

**2016**

**APRIL**
- VERTEX participated in the XVI annual All-Russian Open Contest for the Professionals of the Pharmaceutical Industry “Platinum Ounce”, and for the first time was awarded the prize in the nomination “Vector of the Year”, sub-nominations “Project of the Year. Business Project” for starting a Russian pharmaceutical plant in St. Petersburg.

The company leads the ratings among the fastest growing companies for the top-100 manufacturers of medications in terms of sales at the Russian pharmaceutical retail market in 2015, according to DSM Group.

**MAY**
- VERTEX and Almazov National Medical Research Centre signed an agreement on scientific partnership. It stipulates cooperation in the development and conduct of preclinical, clinical, pharma-economic studies of medications.

VERTEX also became the first pharmaceutical company to enter the medical scientific and educational cluster “Translational Medicine”. Almazov National Medical Research Centre became its the anchor center.
JUNE

VERTEX confirmed the compliance of the quality of management system with the national and international standards ISO 9001. The company obtained the certificates confirming the compliance with national standard GOST ISO 9001-2011 in the GOST system and international standard ISO 9001:2008 in the systems PP and IQNet (issued by the certifying association “Russian Register”).

AUGUST

VERTEX was awarded the first prize as “Enterprise of the Year”, by “Business Petersburg” in two nominations for St. Petersburg — “Best Employer” and “Modernization”.

2017

JANUARY

Following the results of 2016 the company became the leader among the most rapidly growing drug manufacturers for the second consecutive year, in terms of sales at the Russian pharmaceutical retail market, according to DSM Group.

FEBRUARY

VERTEX joined the list of top-3 Russian manufacturers of medications, with the highest impact in the pharmaceutical market in 2016. It was the only company hosted in St. Petersburg, and it took the third prize data: (Research Holding) “Romir”.

AUGUST

The company became a laureate in the nomination “Locomotive Industry” at the “Enterprise of the Year” award established by the leading local business publication of the North-West region.

SEPTEMBER

VERTEX received the St. Petersburg Government’s Innovative Product Award-2017 for the original combined medication in gynecology and dermatovenerology, in the nomination “Medicine, Biotechnology and Pharmaceutics” (3rd place). VERTEX became the only pharmaceutical producer among the nominees of the Prize Government of the Russian Federation in 2017 for quality. Winners’ announcement is scheduled for November.

VERTEX is a laureate of the of the Prize Government of the Russian Federation in 2017 for quality. Corresponding decree was signed by Russian Prime Minister Dmitriy Medvedev. Among 10 laureates VERTEX is the only one pharmaceutical manufacturer, the only company from St. Petersburg and one of five organizations with more than 1 000 employees. Applications for the award were filed by 280 companies from 61 constituent entities. This is 6 times more comparing to last year. The governmental Quality Award is the highest state award in this sphere.

LLC “Farmamed”

2015

JANUARY

Farmamed was certified for the compliance with Russian GMP standards. Main production sites were modernized and reconstructed, a new production shop for pharmaceutical substances was put into operation.

SEPTEMBER

Pharmaceutical substance Meldonium was registered.

NOVEMBER

The pharmaceutical substance Methyl ethylpyridinol hydrochloride was registered.

2016

JUNE

Fenibut pharmaceutical substance was registered.

JULY

Pharmaceutical substance Ademetionine 1,4-butanedisulfonate was registered.

NOVEMBER

Farmamed expanded its product portfolio with a new line of dietary supplements, as syrups based on plant components — “Valedimin® Plus” and “Nefromone® Plus”. “Valimidine® Plus” became an addition to “Valemidin®”, and “Nefromon® Plus”, made from small-leaved acanthoptera growing in the South-Gobi areas Mongolia, expanded the range of renal drugs in the pharmaceutical market.
2017

AUGUST
Pharmaceutical substance Proroxan and medicinal preparation VEGETROX® were registered. A drug based on its own substance is being prepared for release by the end of the year.

OCTOBER
Farmamed released a new innovative cosmetic product — Regenerating face cream ARMADIN® BEAUTY. They were first to apply the technology, combining natural anti-aging components and drug substance, which is part of the group of vital medicines — Ethylmethylhydroxypyridine succinate (EMGPS).

CJSC “Acticomp”

2015

APRIL
Ministry of Health of the Russian Federation added the substance “Purified micronized flavonoid” to the State Register of Medicines for Medical Applications.

DECEMBER
Acticomp was certified for the compliance with Russian GMP standards.

2016

APRIL
Acticomp has acquired technical equipment in accordance to the import substitution program (Russian Federation state program “Development of the pharmaceutical and medical industry” for 2013-2020) to implement the project of manufacture expanding and reconstruction in order to increase the capacity and bring it in full compliance with the requirements of GMP.

OCTOBER
CJSC “Acticomp” and JSC “Akrihin” signed a protocol confirming intentions of companies on mutually beneficial partnership aimed at organizing production of drugs. The project is aimed at maintaining state import substitution policies and increasing access to medicines, optimization of quality control and logistics of products.

2017

FEBRUARY
Acticomp became a member of the Association of Pharmaceutical Manufacturers of the EEU (Eurasian Economic Union).

APRIL
Acticomp concluded a transaction for the acquisition of a land plot of 5 hectares with a building area of over 20 000 sq. m., to accommodate the new production in the Pushkin district of St. Petersburg. Investments in the project will amount to 2 bln rub. Financial placements will enable the company to increase the volume of production by 2.5 times. New production will be launched in 2020. The plant will be producing pharmaceutical substances for internal and external market.

MAY
The company signed an agreement with Saint-Petersburg Chemical and Pharmaceutical Academy to host the Department of Chemical Synthesis at the new plant of Acticomp in Pushkin.
The company signed an agreement of intent with the Government of St. Petersburg, according to which Pushkin (St. Petersburg region) will host the largest plant for the production of active pharmaceutical substances in Europe.

Acticomp modernized the production site in the village Metallostroy in the south-east of St. Petersburg. The volume of production of substances increased 1.5 times — up to 60 tons per year. Investments in the project amounted to 300 mln rub. 120 mln rub. out of these are aimed at acquiring new equipment. Total plant area after reconstruction increased to 3 500 sq. m., 1 200 sq. m. out of these were given to scientific and research laboratories. Technical re-equipment and implementation of innovative technologies allowed to accelerate the production process up to 2-3 times. Expansion of R&D base up to 5 times increased the ability of Acticomp to introduce new substances — up to 10 nomenclature positions a year, and provided the company with an additional advantage on market.

CJSC “MBRPC “Cytomed”

2015

MAY

MBRPC Cytomed presented a new drug Prostatilen AC, for correction of reproductive disorders with males.

MBRPC Cytomed launched the industrial production of original Russian medicines in Lappeenranta (Finland) at the new Cytomed OY plant. The company invested 15 mln euro to the project. The medicines for the prevention and early treatment of influenza and other acute respiratory viral infections with children and adults were first to roll off the production line.

OCTOBER

MBRPC Cytomed registered cream Vartotsid. It is an immunomodulating agent for topical application, showing antiviral and antitumor effect by activating the processes of immune inflammation due to induction of synthesis a complex of cytokines of a proinflammatory orientation.

2016

APRIL

MBRPC Cytomed was announced a winner of the “Development Award” at the St. Petersburg International Economic Forum, in the nomination “The Best Project of the Subject of Small and Medium Enterprises” for its construction project on SEZ “Novoorlovskaya” in St. Petersburg. It is a research and industrial complex for research and production of active pharmaceutical substances.

NOVEMBER

MBRPC Cytomed presented a peptide immunomodulator at the congress of therapists Timogen and a preparation for the prevention and treatment of influenza and acute respiratory viral infections Citovir-3.

DECEMBER

MBRPC Cytomed became a prize-winner in the nomination “Immunomodulator of choice in acute period of respiratory infection in children who are often ill” according to the results of the fifth annual award in pharmacy and medicine at “Russian Pharma Awards 2016”.

2017

SEPTEMBER

MBRPC Cytomed received the St. Petersburg Government Prize for the best Innovative product in medicine, biotechnology and pharmaceutics, for the development of Prostatilen AC — a complex drug for the treatment of reproductive disorders with males.

LLC “PHARMACOR PRODUCTION”

2015

○ Reconstruction of the packing department in accordance with GMP requirements.

2016

○ Reconstruction of preparation and tableting department in accordance with GMP requirements.

2017

○ Obtaining a GMP certificate for manufacturing medicines.

Successful completion of clinical trials for antidiabetic drug.
Comparative performance analysis of the pharmaceutical companies, participating in the Cluster of Medical and Pharmaceutical Industries, and Radiation Technologies for the period 2014-2016

Currently, 20 manufacturing companies participate in the Cluster of Medical and Pharmaceutical Industries, and Radiation Technologies.

All the participants have been offered land plots for development and construction in special economic zone of St. Petersburg, under favourable terms. The SEZ currently hosts 5 companies of the Cluster — CJSC “BIOCAD”, JSC “VERTEX”, JSC “PHARMASYNTEZ.NORD” and CJSC “MBRPC “Cytomed”, GEROPHARM Group.

Due to supportive measures taken by the Government of St. Petersburg, drugs production in SEZ grew up by 40% in 2016 in comparison with 2015 and made 23.0 bln rub.

Aggregate production volume at the Cluster for the period 2014-2016 constitutes the major part of all drug production in St. Petersburg. In which case the drug production for the companies participating in the cluster increased by 5% in 2015 as compared to 2014 and reached 90% staying at the same level in 2016.

Increase in production in 2015-2016, as compared to 2014, resulted from modernizing production facilities and construction of new production lines for the Cluster leading plants — LLC “STPC “POLYSAN”, JSC “VERTEX”, GEROPHARM Group and CJSC “BIOCAD”.

In total, the largest pharmaceutical companies of the cluster accounted for 64% of all products produced by the cluster in 2016, in monetary terms.

In 2016, 56% of drugs were shipped by cluster companies to buyers residing in St. Petersburg, and 42% — to other regions of the Russian Federation. Exports accounted for only 2% of all cluster products.

LLC “STPC “POLYSAN” takes the leading position in the structure of export supplies. In 2016 the company shipped abroad 43% of all exported products of the cluster.
In 2016, total sales for Cluster companies made 33.5 bln rub. CJSC “BIOCAD” performed highest sales with total share of 34% for all products sold by the companies.

In 2016, total tax deductions to budgets of various levels amounted to 3.9 bln rub. — that is an increase by 54%, as compared to 2015.
Comparative analysis of drugs production in the federal districts of the Russian Federation for the period 2014-2016

Drugs production market in the Russian Federation is actively developing due to the active state support. Focus on import substitution has strengthened the positions of domestic producers and created prerequisites to create commercial partnerships and local production by foreign companies. The rule — “third is a crowd” — has sharply increased the chances of Russian companies to supply drugs within the public procurement. The rule was introduced in late 2015 and had quite a significant impact on market development in 2016.

In general, the production of medicines increased by 26% in 2016, as compared to the previous year and amounted to 297.6 bln rub. The Siberian (+ 61%), the North-West (+ 50%), and the Ural (+ 35%) federal districts showed the best development rates.

### Total volume of drugs production in the RF in 2014-2016, bln rub.

<table>
<thead>
<tr>
<th>Year</th>
<th>CFD</th>
<th>NWFD</th>
<th>SFD</th>
<th>NCFD</th>
<th>PFD</th>
<th>UFD</th>
<th>NFD</th>
<th>FEFD</th>
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<tbody>
<tr>
<td>2014</td>
<td>13.2</td>
<td>42.1</td>
<td>3.2</td>
<td>0.9</td>
<td>19.9</td>
<td>2.1</td>
<td>212.4</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>16.1</td>
<td>51.2</td>
<td>3.3</td>
<td>0.8</td>
<td>21.4</td>
<td>2.6</td>
<td>237.0</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>17.7</td>
<td>56.8</td>
<td>3.3</td>
<td>0.7</td>
<td>34.4</td>
<td>2.7</td>
<td>297.6</td>
<td></td>
</tr>
</tbody>
</table>

The growth rate of the production of drugs production in the federal districts of the Russian Federation, 2014-2016

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CFD</td>
<td>14%</td>
<td>23%</td>
</tr>
<tr>
<td>NWFD</td>
<td>-22%</td>
<td>50%</td>
</tr>
<tr>
<td>SFD</td>
<td>-8%</td>
<td>-7%</td>
</tr>
<tr>
<td>NCFD</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>PFD</td>
<td>22%</td>
<td>11%</td>
</tr>
<tr>
<td>UFD</td>
<td>22%</td>
<td>35%</td>
</tr>
<tr>
<td>NFD</td>
<td>8%</td>
<td>61%</td>
</tr>
<tr>
<td>FEFD</td>
<td>24%</td>
<td>3%</td>
</tr>
</tbody>
</table>

The growth rate of the production of drugs production in the Russian Federation, 2014-2016

| RF | 12% | 26% |
Development of the pharmaceutical market in St. Petersburg somehow falls behind the overall market development in the North-Western Federal District and the Russian Federation. Nevertheless, the drugs production in St. Petersburg increased by 39% in 2016, as compared to the previous year and reached 20.3 bln rub.
VED list drugs produced by companies, participating in the Cluster of Medical and Pharmaceutica Industries, and Radiation Technologies

Vitally essential and essential drugs (VED) is a list of drugs approved by the Government of the Russian Federation for statutory regulation of prices for drugs. These regulations are aimed at increasing drugs availability both to the medical and preventive institutions.

The list of VED for 2017 was approved by the order of the Government of the Russian Federation № 2885-r dated 28.12.2016 and includes 646 international non-proprietary names of medicinal products.

16 companies from Medical and Pharmaceutical Cluster of St. Petersburg currently keep 136 international non-proprietary names (INN) from the VED list in their portfolio.

In 2016, the volume of drugs production from VED list reached 15.36 bln rub., and accounted for 67% of the total volume of all drugs produced by the cluster.

Production ratio of VED and Non-VED medicinal products in Cluster companies portfolio, 2016
Limited Liability Company 
"Scientific-technological pharmaceutical company “POLYSAN”

MEDICINAL PRODUCTS FROM THE VED-LIST

TRADING NAME (INN)
- Glucose (Dextrose)
- Mekxiprim (Ethylmethylhydroxypyridine succinate)
- Sodium chloride (Sodium chloride)
- Reamberin (Meglumine sodium succinate)
- Ringer (Sodium chloride solution is complex [Potassium chloride + Calcium chloride + Sodium chloride])
- Cycloferon (Cycloferonum)
- Cytoflavin (Inosine + Nicotinamide + Riboflavin + Succinic acid)
- Remaxol

GEROPHARM Group

MEDICINAL PRODUCTS FROM THE VED-LIST

TRADING NAME (INN)
- Cortexin (Cortex brain polypeptides)
- Levetinol (Levetiracetam)
- Memantine (Memantine)
- Pregabalin (Pregabalimum)
- Recognan (Citicoline)
- Rinsulin (Insulin isophane [human genetic engineering])

Joint-Stock Company "VERTEX"

MEDICINAL PRODUCTS FROM THE VED-LIST

TRADING NAME (INN)
- Azithromycin (Azithromycin)
- Alendronate (Alendronic acid)
- Alfuzosin (Alfuzosin)
- Amlodipine (Amlodipine)
- Amlotis (Amlotis)
- Atorvastatin (Atorvastatin)
- Acetylcysteine (Acetylcysteine)
- Acyclovir (Acyclovir)
- Betagistin (Betagistin)
- Ibufrofen Gel (Ibufrofen)
- Indapamide (Indapamide)
- Carvedilol (Carvedilol)
- Quetiapine (Quetiapine)
- Ketorolac (Ketorolac)
- Clarithromycin (Clarithromycin)
- Levofloxacin (Levofloxacin)
- Lisinopril (Lisinopril)
- Losartan (Losartan)
- Loratadine (Loratadin)
- Memantine (Memantine)
- Moxaurel (Moxonidine)
- Mosfloxacin (Mosfloxacin)
- Nosephrine (Mometasone)
- Perindopril (Perindopril)
- Pyracetam (Pyracetam)
- Ribavirin (Ribavirin)
- Risperidone (Risperidone)
- Simvastatin (Simvastatin)
- Tamsulosin (Tamsulosin)
- Fluconazole (Fluconazole)
- Cetirizine (Cetirizine)
- Eladon (Fenspiride)

Limited Liability Company "Gematek"

MEDICINAL PRODUCTS FROM THE VED-LIST

TRADING NAME (INN)
- Glucose (Dextrose)
- Sodium chloride (Sodium chloride)
- Ringer (Sodium chloride solution is complex [Potassium chloride + Calcium chloride + Sodium chloride])
- Stereofundin isotonic (Potassium chloride + Calcium chloride + Magnesium chloride + Sodium acetate + Sodium chloride + Appleic acid)

5 021.00 mln rub.
Total production of VED-drugs, 2016

100%
VED-drugs share in total drugs production, 2016

3 398.90 mln rub.
Total production of VED-drugs, 2016

89%
VED-drugs share in total drugs production, 2016

2 779.50 mln rub.
Total production of VED-drugs, 2016

70%
VED-drugs share in total drugs production, 2016

981.70 mln rub.
Total production of VED-drugs, 2016

100%
VED-drugs share in total drugs production, 2016
Joint-Stock Company "Farmproekt"

MEDICINAL PRODUCTS FROM THE VED-LIST

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atenolol (Atenolol)</td>
</tr>
<tr>
<td>Vinpocetine (Vinpocetine)</td>
</tr>
<tr>
<td>Glimepiride (Glimepiride)</td>
</tr>
<tr>
<td>Drotaverine (Drotaverine)</td>
</tr>
<tr>
<td>Ketoprofen (Ketoprofen)</td>
</tr>
<tr>
<td>Pancreatin (Pancreatin)</td>
</tr>
<tr>
<td>Paracetamol (Paracetamol)</td>
</tr>
<tr>
<td>Pyracetam (Pyracetam)</td>
</tr>
<tr>
<td>Ranitidine (Ranitidine)</td>
</tr>
<tr>
<td>Ribavirin (Ribavirin)</td>
</tr>
<tr>
<td>Fluconazole (Fluconazole)</td>
</tr>
<tr>
<td>Chlorhexidine (Chlorhexidine)</td>
</tr>
</tbody>
</table>

130.00 mln rub.
Total production of VED-drugs, 2016

20%
VED-drugs share in total drugs production, 2016

Limited Liability Company "Grotex"

MEDICINAL PRODUCTS FROM THE VED-LIST

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acesol (Potassium chloride + Sodium acetate + Sodium chloride)</td>
</tr>
<tr>
<td>Bupivacaine (Bupivacaine)</td>
</tr>
<tr>
<td>Water for Injection (Water)</td>
</tr>
<tr>
<td>Glucose (Dextrose)</td>
</tr>
<tr>
<td>Diclofenac-Solofarm (Diclofenac)</td>
</tr>
<tr>
<td>Diclofenac (Diclofenac)</td>
</tr>
<tr>
<td>Dorzolamide-Solofarm (Dorzolamide)</td>
</tr>
<tr>
<td>Potassium chloride (Potassium chloride)</td>
</tr>
<tr>
<td>Ketorolac-Solofarm (Ketorolac)</td>
</tr>
<tr>
<td>Xylometazoline-Solofarm (Xylometazoline)</td>
</tr>
<tr>
<td>Levofloxicin-Solofarm (LevoFloxacin)</td>
</tr>
<tr>
<td>Lidocaine (Lidocaine)</td>
</tr>
<tr>
<td>Magnesium sulfate (Manganese sulfate)</td>
</tr>
<tr>
<td>Mannitol (Mannitol)</td>
</tr>
<tr>
<td>Meldonius-Solofarm (Meldonius)</td>
</tr>
<tr>
<td>Sodium Chloride (Sodium Chloride)</td>
</tr>
<tr>
<td>Novocain (Procaine)</td>
</tr>
<tr>
<td>Ondansetron (Ondansetron)</td>
</tr>
<tr>
<td>Ofloxicin-Solofarm (Ofloxicin)</td>
</tr>
<tr>
<td>Pentoxifylline (Pentoxifylline)</td>
</tr>
<tr>
<td>Hydrogen Peroxide (Hydron Peroxide)</td>
</tr>
<tr>
<td>Pyracetam (Pyracetam)</td>
</tr>
<tr>
<td>Pyridoxine-Solofarm (Pyridoxine)</td>
</tr>
<tr>
<td>Reopoliglyukin-40 (Dextran [co-sol. Mass 35000-45000])</td>
</tr>
<tr>
<td>Ringer (Sodium chloride solution is complex eleven (Potassium chloride + Calcium chloride + Sodium chloride))</td>
</tr>
<tr>
<td>Soloxylometazoline (Xylometazoline)</td>
</tr>
<tr>
<td>Thiamine-Solofarm (Thiamine)</td>
</tr>
<tr>
<td>Timolol-Solofarm (Timolol)</td>
</tr>
<tr>
<td>Chloropyramine (Chloropyramine)</td>
</tr>
<tr>
<td>Chlorsol (Potassium chloride + Sodium acetate + Sodium chloride)</td>
</tr>
<tr>
<td>Ciprofloxicin-Solofarm (CiproFloxicin)</td>
</tr>
<tr>
<td>Eufillin (Aminophylline)</td>
</tr>
</tbody>
</table>

433.60 mln rub.
Total production of VED-drugs, 2016

28%
VED-drugs share in total drugs production, 2016

Closed Joint-Stock Company "BIOCAD"

MEDICINAL PRODUCTS FROM THE VED-LIST

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avegra (Bevacizumab)</td>
</tr>
<tr>
<td>Algeron (Tsirpeginterferon alfa-2b)</td>
</tr>
<tr>
<td>Anastrozole (Anastrozole)</td>
</tr>
<tr>
<td>Acelibia (Rituximab)</td>
</tr>
<tr>
<td>Bevacizumab (Bevacizumab)</td>
</tr>
<tr>
<td>Gecemibar (Gemcitabine)</td>
</tr>
<tr>
<td>Geritikad (Trastuzumab)</td>
</tr>
<tr>
<td>Darunavir (Darunavir)</td>
</tr>
<tr>
<td>Zilacomb (Zidovudine + Lamivudine)</td>
</tr>
<tr>
<td>Zolirix (Zoledronic acid)</td>
</tr>
<tr>
<td>Imatinib (Imatinib)</td>
</tr>
<tr>
<td>Interferon beta-1b (Interferon beta-1b)</td>
</tr>
<tr>
<td>Irinotecan (Irinotecan)</td>
</tr>
<tr>
<td>Cepcicabine (Capecitabine)</td>
</tr>
<tr>
<td>Carboplatin (Carboplatin)</td>
</tr>
<tr>
<td>Leicostimulation (Filgrastim)</td>
</tr>
<tr>
<td>Novotax (Docetaxel)</td>
</tr>
<tr>
<td>Pemetrexed (Pemetrexed)</td>
</tr>
<tr>
<td>Platikad (Oxaliplatinum)</td>
</tr>
<tr>
<td>Rituximab (Rituximab)</td>
</tr>
<tr>
<td>Ronbetal (Interferon beta-1b)</td>
</tr>
<tr>
<td>Taxigree (Pacitaxel)</td>
</tr>
<tr>
<td>Theterifer (Interferon beta-1a)</td>
</tr>
<tr>
<td>Temozolomide (Temozolomide)</td>
</tr>
<tr>
<td>Tenofovir (Tenofovir)</td>
</tr>
<tr>
<td>Timexkron (Glatiramer acetate)</td>
</tr>
<tr>
<td>Trastuzumab (Trastuzumab)</td>
</tr>
<tr>
<td>Flugard (Fludarabine)</td>
</tr>
<tr>
<td>Citugin (Vinorelbine)</td>
</tr>
</tbody>
</table>

641.99 mln rub.
Total production of VED-drugs, 2016

32%
VED-drugs share in total drugs production, 2016
## Joint-Stock Company “Medpolimer”

**MEDICINAL PRODUCTS FROM THE VED-LIST**

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aminocaproic acid (Aminocaproic acid)</td>
<td></td>
</tr>
<tr>
<td>Hemostabil (Dextran)</td>
<td></td>
</tr>
<tr>
<td>Glucose (Dextrose)</td>
<td></td>
</tr>
<tr>
<td>Mannitol (Mannitol)</td>
<td></td>
</tr>
<tr>
<td>Metronidazole (Metronidazole)</td>
<td></td>
</tr>
<tr>
<td>Sodium Chloride (Sodium Chloride)</td>
<td></td>
</tr>
<tr>
<td>Resopoliglyakin-40 (Dextran)</td>
<td></td>
</tr>
<tr>
<td>Ringer (Sodium chloride solution is complex [Potassium chloride + Calcium chloride + Sodium chloride])</td>
<td></td>
</tr>
<tr>
<td>Volemkor (Hydroxyethyl starch)</td>
<td></td>
</tr>
</tbody>
</table>

**Total production of VED-drugs, 2016:** 604.70 mln rub.  
**VED-drugs share in total drugs production, 2016:** 88%

## Limited Liability Company “ROSBIO“

**MEDICINAL PRODUCTS FROM THE VED-LIST**

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide (Hydrogen Peroxide)</td>
<td></td>
</tr>
<tr>
<td>Ethyl alcohol (Ethanol)</td>
<td></td>
</tr>
<tr>
<td>Chlorhexidine (Chlorhexidine)</td>
<td></td>
</tr>
<tr>
<td>Chlorhexidine bigluconate (Chlorhexidine)</td>
<td></td>
</tr>
<tr>
<td>Ethanol medical (Ethanol)</td>
<td></td>
</tr>
</tbody>
</table>

**Total production of VED-drugs, 2016:** 337.55 mln rub.  
**VED-drugs share in total drugs production, 2016:** 100%

## Limited Liability Company “PHARMACOR PRODUCTION“

**MEDICINAL PRODUCTS FROM THE VED-LIST**

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amlodipine (Amlodipine)</td>
<td></td>
</tr>
<tr>
<td>Gliatilin (Kholina alfoscerate)</td>
<td></td>
</tr>
<tr>
<td>Diabeferm (Gliklazid)</td>
<td></td>
</tr>
<tr>
<td>Diabeferm MB (Gliklazid)</td>
<td></td>
</tr>
<tr>
<td>Diosmectite (Smectite dioctahedral)</td>
<td></td>
</tr>
<tr>
<td>Captopril (Captopril)</td>
<td></td>
</tr>
<tr>
<td>Clotrimazole (Clotrimazole)</td>
<td></td>
</tr>
<tr>
<td>Loperamide (Loperamide)</td>
<td></td>
</tr>
<tr>
<td>Loratadine (Loratadin)</td>
<td></td>
</tr>
<tr>
<td>Metipred (Methylprednisolone)</td>
<td></td>
</tr>
<tr>
<td>Tamoxifen (Tamoxifen)</td>
<td></td>
</tr>
<tr>
<td>Enalapril (Enalapril)</td>
<td></td>
</tr>
</tbody>
</table>

**Total production of VED-drugs, 2016:** 120.20 mln rub.  
**VED-drugs share in total drugs production, 2016:** 19%

## Closed Joint-Stock Company “Acticomp”

**MEDICINAL PRODUCTS FROM THE VED-LIST**

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azithromycin</td>
<td></td>
</tr>
<tr>
<td>Betagistin hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Indapamide</td>
<td></td>
</tr>
<tr>
<td>Carvedilol</td>
<td></td>
</tr>
<tr>
<td>Keterolac tromethamine</td>
<td></td>
</tr>
<tr>
<td>Clarithromycin</td>
<td></td>
</tr>
<tr>
<td>Clopidogrel hydrogen sulfate</td>
<td></td>
</tr>
<tr>
<td>Levofloxacin</td>
<td></td>
</tr>
<tr>
<td>Losartan potassium</td>
<td></td>
</tr>
<tr>
<td>Loratadin</td>
<td></td>
</tr>
<tr>
<td>Perindopril erbumine</td>
<td></td>
</tr>
<tr>
<td>Ribavirin</td>
<td></td>
</tr>
<tr>
<td>Risperidone</td>
<td></td>
</tr>
<tr>
<td>Simvastatin</td>
<td></td>
</tr>
<tr>
<td>Tyloron</td>
<td></td>
</tr>
<tr>
<td>Timolola maleate</td>
<td></td>
</tr>
<tr>
<td>Fenspiride hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Fluconazole</td>
<td></td>
</tr>
</tbody>
</table>

**Total production of VED-drugs, 2016:** 613.00 mln rub.  
**VED-drugs share in total drugs production, 2016:** 76%
Closed Joint-Stock Company "PHARMA VAM"

**MEDICINAL PRODUCTS FROM THE VED-LIST**

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
<th>Total production of VED-drugs, 2016</th>
<th>VED-drugs share in total drugs production, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glutoxim (Glutamyl-Cysteinyl-Glycine Disodium)</td>
<td>112.25 mln rub.</td>
<td>100%</td>
</tr>
</tbody>
</table>

Joint-Stock Company "Pharmaceutical Factory of Saint Petersburg"

**MEDICINAL PRODUCTS FROM THE VED-LIST**

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
<th>Total production of VED-drugs, 2016</th>
<th>VED-drugs share in total drugs production, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acyclovir (Acyclovir)</td>
<td>98.86 mln rub.</td>
<td>100%</td>
</tr>
<tr>
<td>Beclospir (Beclomethasone)</td>
<td>58.57 mln rub.</td>
<td>50%</td>
</tr>
<tr>
<td>Benzyl benzoate (Benzyl benzoate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vitamin D3 (cholecalciferol)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kromospir (Cromoglycic acid)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical antiseptic solution (Rihanol)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrogen Peroxide (Hydrogen Peroxide)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retinol acetate (Retinol)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retinol acetate solution in oil (Retinol)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fenipra (Ipratropium bromide + Fenoterol)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlorhexidine (Chlorhexidine)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Federal State Unitary Institution "State Research Institute of Highly Pure Biopreparations" of the Federal Medical-Biological Agency of the Russian Federation

**MEDICINAL PRODUCTS FROM THE VED-LIST**

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
<th>Total production of VED-drugs, 2016</th>
<th>VED-drugs share in total drugs production, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter P (Interferon alfa-2)</td>
<td>58.57 mln rub.</td>
<td>50%</td>
</tr>
<tr>
<td>Epokrin (Epoetin alfa)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Limited Liability Company "Biosurf"

**MEDICINAL PRODUCTS FROM THE VED-LIST**

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
<th>Total production of VED-drugs, 2016</th>
<th>VED-drugs share in total drugs production, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surfactant-BL</td>
<td>23.38 mln rub.</td>
<td>100%</td>
</tr>
</tbody>
</table>

**PART 1. PRODUCTION OF DRUGS**

<table>
<thead>
<tr>
<th>TRADING NAME (INN)</th>
<th>Total production of VED-drugs, 2016</th>
<th>VED-drugs share in total drugs production, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retinol acetate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retinol acetate solution in oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fenipra (Ipratropium bromide + Fenoterol)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlorhexidine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Information on product segment of the Cluster of Medical and Pharmaceutical Industries, and Radiation Technologies

Limited Liability Company “Scientific-technological pharmaceutical company “POLYSAN”

+7 (812) 710-82-25
info@polysan.ru
www.polysan.ru

SPECIALIZATION IN PRODUCTION
Manufacture of original drugs Cycloferon, Reamberin, Cytoflavin and Remaxol.

LIST OF MANUFACTURED PRODUCTS

- Glucose (solution for infusion: containers);
- Mexiprim (solution for intravenous and intramuscular injection: ampoules);
- Sodium chloride (solution for infusion: containers);
- Reamberin® (solution for infusion: bottles, containers);
- Remaxol® (solution for infusion: bottles);
- Ringer (solution for infusion: containers);
- Cycloferon® (tablets; liniment: tubes, tubes c/w vaginal applicators; solution for intravenous and intramuscular injection: ampoules);
- Cytoflavin® (tablets; solution for intravenous injection: ampoules).

MANUFACTURING FACILITIES

2 manufacturing sites:

St. Petersburg,
Salova Street, 72, Bldg. 2, Letter A.
The pharmaceutical Factory POLYSAN
Production area
10 678 sq. m.
The manufacture is oriented to production of non-sterile and sterile dosage forms of drugs.

Production capacity:
tablets – 300 mln per year;
Infusion solutions – 12 mln units per year.

LLC “Polysyntez”, Belgorod, Rabochaya Street, 14.
The manufacture is oriented to creation of active pharmaceutical substances for in-house drugs of POLYSAN (more than 20 names).

In 2016 POLYSAN commenced construction of the third stage of the pharmaceutical factory in St. Petersburg designed to increase the output of tableted forms more than three-fold. After the new facilities are put into operation, the company's output will reach 1 bln tablets per year.

2016 MANUFACTURE VOLUME
5 021.00 mln rub.

DIRECTIONS OF RESEARCH

The main priority of POLYSAN is creation of innovative original drugs possessing high therapeutic efficacy.

All stages of development, studies, and post-marketing authorization follow-up of drugs are concentrated in the Directorate for Science including the production laboratory, pre-clinical and clinical studies unit, unit for coordination of medical and biological investigations, and a marketing unit.

In August 2017, POLYSAN commenced construction of a research and process center having an area of 4 844 sq. m., on the pharmaceutical factory territory at the address: St. Petersburg, Salova Street, 72, Bldg. 2, Letter A.

The expected commissioning date is September 2018.
**PART 1. PRODUCTION OF DRUGS**

**GEROPHARM Group**

[GEROPHARM logo]

+7 (812) 703-79-75
inform@geropharm.ru
www.geropharm.ru

**SPECIALIZATION IN PRODUCTION**

Manufacture of active biotech drugs for diseases in the field of psychoneurology, ophthalmology, endocrinology, and gynecology.

**LIST OF MANUFACTURED PRODUCTS**

**PSYCHONEUROLOGY:**
- Cortexin® (lyophilisate for solution for intramuscular injection: vials);
- Cortexin® for children (lyophilisate for solution for intramuscular injection: vials);
- Levetinol® (tablets; oral solution: vials);
- Memantinol® (tablets);
- Recognan® (oral solution: bags, vials; solution for intravenous and intramuscular injection: ampoules);
- Pregabalin (capsules);

**OPHTHALMOLOGY:**
- Retinalamin® (lyophilisate for solution for intramuscular and parabulbar injection: vials);

**CLIMACTERIC SYNDROME THERAPY:**
- Pineamin® (lyophilisate for solution for intramuscular injection: vials);

**ENDOCRINOLOGY:**
- Rinulin® R (solution for injection: cartridges, syringe pens, vials);
- Rinulin® NPH (suspension for subcutaneous injection: cartridges, syringe pens).

**MANUFACTURING FACILITIES**

Obolensk town (Moscow Region).

**Production area**

9 400 sq. m.

Full-cycled modern biotechnological manufacturing; The first industrial manufacturer of genetically engineered human insulin in Russia – from synthesis of substance to finished dosage form.

Nowadays GEROPHARM is able to provide 30% of Russian Federation needs of genetically engineered human insulin.

Currently GEROPHARM is implementing a project of building a new production facility in Pushkin city (St. Petersburg).

**Production area**

14 000 sq. m.

Commissioning:
- November, 2017 – production of pharmaceutical substances for original products.
- November, 2018 – production of genetically engineered human insulin and analog insulin.

The line capacity will be 1 000 kg of substance per year, and that will completely satisfy the needs for insulin of Russian citizens – 800 kg per year, and will increase export possibilities of the company.

**2016 MANUFACTURE VOLUME**

3 800.09 mln rub.

**DIRECTIONS OF RESEARCH**

CJSC “Farm-Holding” (St. Petersburg, Strelna settlement, Svyazi street, bul. 34, lit. A) is a research unit of GEROPHARM group of companies.

Development of biotechnological drugs is a priority research line of the company. With this objective in view, a new biotechnological unit as a part of the research center was opened in 2014. Today laboratories have the total area of more than 1 500 sq. m and are equipped with hi-tech equipment and meet the international standards in the field of medical products development.

The research center focuses on development of medical products based on a full cycle production: from synthesis of molecules to development of a final drug formulation, testing and introduction of technologies into industrial production, arrangement of pre-clinical and clinical researches. Development is carried out with the use of genetic engineering, molecular, and cellular biology.

Priority lines of R&D center works are endocrinology, neurology, ophthalmology; there are more than 15 projects in work in total.

Nowadays GEROPHARM develops drugs for diabetes treatment, including insulin analogues, being guided by requirements of the Ministry of Health of the Russian Federation and cutting-edge international experience, namely EMEA and FDA guidelines, which brings to high export potential of the project.

GEROPHARM was the first Russian company that has organized and carried out a clamp-research of insulin analogues in Russia. One of them has been already successfully finished and results of clinical tests have been sent to the Ministry of Health of the Russian Federation.
Limited Liability Company “Grotex”

+7 (812) 385-47-87
grtx@grotexmed.com
www.solopharm.com

SPECIALIZATION IN PRODUCTION
Manufacture of injection and infusion solutions, ophthalmological, otolaryngological, pulmonological, rheumatologic, cosmetic, and gastroenterological drugs.

LIST OF MANUFACTURED PRODUCTS

**INFUSION SOLUTIONS BFS:**
- Acetol (solution for infusion: vials);
- Water for injection (solvent for injection dosage forms: vials);
- Glucose (solution for infusion: vials);
- Disol (solution for infusion: vials);
- Mannitol (solution for infusion: vials);
- Sodium chloride (solution for infusion: vials);
- Poliflak Domus (solution for infusion: vials);
- Rhoepolyglicin-40 (solution for infusion: vials);
- Ringer (solution for infusion: vials);
- Chlorsol (solution for infusion: vials);

**INJECTIONS IN GLASS AMPOULES:**
- Analgin-SOLOpharm (solution for intramuscular injection: ampoules);

**DICLOFENAC-SOLOpharm (solution for intramuscular injection: ampoules):**

**CALCIUM GLUCONATE-SOLOpharm (solution for intravenous and intramuscular injection: ampoules):**

**KETOROLAC-SOLOpharm (solution for intravenous and intramuscular injection: ampoules):**

**MELOXICAM-SOLOpharm (solution for intramuscular injection: ampoules):**

**OPHTHALMOLOGY:**
- Betaxolol-SOLOpharm (ophthalmic drops: vials);
- Viksin (ophthalmic drops: unidoses, dropper tubes, vials);
- Glen COMFORT (moistening ophthalmological solution: unidoses);
- Glen ULTRA COMFORT (moistening ophthalmological solution: unidoses);
- Diclofenac-SOLOpharm (ophthalmic drops: unidoses, dropper tubes, vials);
- Dorzolamide-SOLOpharm (ophthalmic drops: unidoses, dropper tubes, vials);
- Dorzolamide-Timol-SOLOpharm (ophthalmic drops: unidoses, dropper tubes, vials);
- Kromicil (ophthalmic drops: unidoses);
- Levofloxacin-SOLOpharm (ophthalmic drops: vials);
- Okusalin (eye wash: unidoses);
- Ofloxacin-SOLOpharm (ophthalmic drops and ear drops: vials);
- Sigida duo (ophthalmic drops: dropper tubes);
- Sigida crystal (tacrine ophthalmic solution for eye redness: unidoses);
- Suflacil Sodium-SOLOpharm (ophthalmic drops: unidoses, dropper tubes, vials);
- Timol-SOLOpharm (ophthalmic drops: vials);
- Trilakton (ophthalmic drops: vials);
- Phenylephrine-SOLOpharm (ophthalmic drops: unidoses);
- Cyclopentolate-SOLOpharm (ophthalmic drops: vials);
- Ciprofloxacin-SOLOpharm (ophthalmic drops and ear drops: vials);

**OTOLARYNGOLOGY:**
- Ambrozol-SOLOpharm (oral solution and solution for inhalation: unidoses);
- Salbutamol-SOLOpharm (solution for inhalation: unidoses);

**PULMONOLOGY:**
- Ambrozol-SOLOpharm (oral solution and solution for inhalation: unidoses);
- Salbutamol-SOLOpharm (solution for inhalation: unidoses);

**TOPICAL SOLUTIONS:**
- Analgin-SOLOpharm (ophthalmic drops: vials);
- Vilka (ophthalmic drops: unidoses, dropper tubes, vials);
- Okusalin (eye wash: unidoses);
- Timol-SOLOpharm (ophthalmic drops: vials);
- Phenylephrine-SOLOpharm (ophthalmic drops: unidoses);
- Ciprofloxacin-SOLOpharm (ophthalmic drops and ear drops: vials);
- LinAqua baby (sea water isotonic solution: aerosol bulbs, unidoses);
- LinAqua norm (sea water isotonic solution for nasal cavity washing and spraying: aerosol bulbs);
- LinAqua soft (sea water isotonic solution for nasal cavity washing and spraying: aerosol bulbs);
- LinAqua Forte for mouth and throat (sea water hypertonic solution for mouth and throat washing and spraying: aerosol bulbs);
- Naphthyzin plus (nasal drops: vials);
- Oxyrin (nasal drops or spray: vials);
- Ofloxin (nasal spray for moistening and healing of nasal mucous membrane: vials);
- Otolin (ear drops: vials);

**ORAL SOLUTIONS:**
- Acufilor-5 (oral drops: unidoses);

**COSMETOLOGY:**
- Galia Termal (fluid tonic with low-molecular hyaluronic acid: aerosol bulbs).

DIRECTIONS OF RESEARCH
The company has its own R&D unit and laboratories providing full-cycle pharmaceutical development and carrying out quality control of incoming raw materials, all stages of production, and output products.

Availability of own R&D department enables the company not only to produce medical products the active ingredients of which have expired patent protection, but also to create original molecules, drugs, and medical products including products of own brands and to develop medical products according to customer’s requirements.

MANUFACTURING FACILITIES
St. Petersburg, Industrial Pr., 71, Bldg. 2.
The Solopharm pharmaceutical factory
Production area
21 500 sq. m.

Solopharm production facilities are equipped with 22 up-to-date lines continuously operating 24 hours per day including:
6 lines for bottling Poliflak infusion polypropylene vials with throughput of up to 2 500 units per hour each;
4 lines for bottling PolyTwist polyethylene unidoses and ampoules with throughput of up to 20 000 units per hour each;
3 lines for bottling glass ampoules with throughput of up to 24 000 units per hour each;
2 lines for bottling prefilled syringes and glass cartridges with throughput of up to 5 000 units per hour each;
2 lines for bottling BDV aerosols with throughput of up to 600 units per hour each;
3 universal bottling lines with throughput of up to 750 units per hour each;
1 line for bottling multidoses with throughput of up to 10 000 units per hour;
1 line for bottling nasal sprays with throughput of up to 6 000 units per hour.

2016 MANUFACTURE VOLUME
1 559.46 mln. rub.
Closed Joint-Stock Company "BIOCAD"

PART 1. PRODUCTION OF DRUGS

SPECIALIZATION IN PRODUCTION
Manufacture of original and generic drugs for oncological, autoimmune, infectious and viral diseases.

LIST OF MANUFACTURED PRODUCTS

DRUGS FOR ONCOLOGICAL DISEASES:
- Avegra® (lyophilisate for solution for infusion: vials);
- Avomil® (concentrate for solution for infusion: vials);
- Anastrozolum (tablets);
- Acelbiya® (concentrate for solution for infusion: vials);
- Bicalutamid (tablets);
- Bortezomib (lyophilisate for solution for infusion: vials);
- Gemcitare® (lyophilisate for solution for infusion: vials);
- Herticad® (lyophilisate for solution for infusion: vials);
- Zolerix® (concentrate for solution for infusion: vials);
- Imatinibum (tablets);
- Irinotecanum (concentrate for solution for infusion: vials);
- Capecitabinum (tablets);
- Carboplatinum (concentrate for solution for infusion: vials);
- Leucostim® (solution for intravenous and subcutaneous injection: syringes, vials);
- Novotax® (concentrate for solution for infusion: vials);
- Pemetrexed (lyophilisate for solution for infusion: vials);
- Platicad® (lyophilisate for solution for infusion: vials);
- Taxacad® (concentrate for solution for infusion: vials);
- Temozolomide (capsules);
- Fluguarda® (lyophilisate for solution for infusion: vials);
- Cituvin® (concentrate for solution for infusion: vials);
- Extimia® (solution for subcutaneous injection: syringes);

DRUGS FOR AUTOIMMUNE DISEASES:
- Acelbiya® (concentrate for solution for infusion: vials);
- Interferon beta-1b (solution for subcutaneous injection: syringes);
- Teberif® (Interferon beta-1a) (solution for subcutaneous injection: syringes);
- Timexon® (solution for subcutaneous injection: syringes);

DRUGS FOR INFECTIOUS AND VIRAL DISEASES:
- Algeron® (solution for subcutaneous injection: syringes, vials);
- Atazanavir (capsules);
- Genferon® (suppositories);
- Genferon® light (nasal drops);
- Genferon® light (nasal spray);
- Genferon® light (suppositories);
- Darunavir (tablets);
- Zilacomb® (tablets);
- Tenofovir (tablets);
- Emtricitabinum (capsules).

DIRECTIONS OF RESEARCH
BIOCAD has its own infrastructure for creating innovative drugs: from development of gene-engineering bioengineering products to clinical studies.

Company’s R&D centers are set up in Lyubuchany, and in innovation clusters in Saint Petersburg: Nojdorf and Frontovaya. 26 laboratories function in the company, 450 employees are engaged in R&D.

More than 40 products 37 of which have biological origin (within the scope of MabNext project) and 8 — chemical origin (within the scope of ChemNext project) intended for treatment of autoimmune diseases, cancer, cardio-vascular diseases, bronchial asthma are now at different development stages.

MANUFACTURING FACILITIES

4 manufacturing sites:

The 5th site is expected to be put into operation in 2019

Moscow,
Petrovo-Dalinee village, Bldg. 1
Production area
2 600 sq. m.
Manufacture of biological substances in E.coli; manufacture of substances through chemical synthesis; manufacture of dosage forms.
Production capacity:
substances in E.coli – 1 kg per year;
chemical synthesis substances – 100 kg per year;
dosage forms – 8 mln vials per year.

Moscow,
Petrovo-Dalinee village, Bldg. 2
Production area
3 100 sq. m.
Manufacture of dosage forms.
Production capacity:
vials – 10 mln per year;
pre-filled syringes – 8 mln per year;
tablets – 8 mln per year;
capsules – 5 mln per year.

Moscow,
Petrovo-Dalinee village
Production area
2 000 sq. m.
Manufacture of monoclonal antibodies substances.
Production capacity:
monoclonal antibodies substances – 160 kg per year.

St. Petersburg, Strelna
Production area
2 000 sq. m.
Manufacture of monoclonal antibodies substances.
Production capacity:
monoclonal antibodies substances – 160 kg per year.

Moscow,
Lyubuchany village
Production area
600 sq. m.
Experimental manufacture for the purpose of scaling up and technology transfer.
Joint-Stock Company "VERTEX"

+7 (812) 329-30-41
vertex@vertex.spb.ru
www.vertex.spb.ru

SPECIALIZATION IN PRODUCTION
Development and manufacture of drugs, cosmetic aids, biologically active additives.

LIST OF MANUFACTURED PRODUCTS

PRESCRIPTION DRUGS:

ALLERGEOLOGY:
- Nosefin® (nasal spray dosed: vials);

GYNECOLOGY:
- Itraconazole® (capsules);
- Clindamycin (vaginal cream: tubes);
- Eltchina® (vaginal tablets);
- Dermatology:
  - Valcycon® (tablets);
  - Devirs® (topical cream: tubes);
  - Itraconazole® (capsules);
  - Terbinafine (tablets);
  - Prostopharic;
  - Tamsulosin (capsules);

INFECTIOUS DISEASES:
- Azithromycin (capsules, tablets);
- Clarithromycin (capsules);
- Levofloxacin (tablets);
- Mosfloxacin (tablets);
- Norfloxacin (tablets);
- Ornidazole (tablets);
- Ribavirin (capsules);

CARDIOLOGY:
- Amlodipine (tablets);
- Atorvastatin (tablets);
- Bisoprolol (tablets);
- Dilaprel® (capsules);
- Indapamide (capsules);
- Carvedilol (tablets);
- Xarten® (tablets);
- Lerkanorm® (tablets);
- Lisinopril (tablets);
- Lozaarant (tablets);
- Lotone® (tablets);
- Moxaret® (tablets);
- Nevidol (tablets);
- Perindopril (tablets);
- Rosuvastatin (tablets);
- Simvastatin (tablets);
- Trimekali® MR (tablets);
- Trimetazidine (capsules);

NEUROLOGY:
- Alental® (tablets);
- Betahistine (tablets);
- Memantine (tablets);
- Piracetam (capsules);
- Sumatriptan (tablets);

OTOLOGYNGY:
- Nosefin® (nasal spray dosed: vials);
- Eladon® (tablets);

PSYCHIATRY:
- Quetiapine (tablets);
- Risperidone (tablets);

PULMONOLOGY:
- Montelukast (tablets);
- Eladon® (tablets);

RHEUMATOLOGY AND TRAUMATOLOGY:
- Alental® (tablets);
- Alendronate (tablets);
- Ketorolac (tablets);
- Meloxicam (tablets);
- Endocascular diseases;
  - Glimepiride (tablets);
  - Erectile dysfunction;
  - Sildenafil VERTEX (tablets);

OTC DRUGS AND COSMETICS:

CARDIOLOGY:
- Aspicor® (tablets);
- Gynecology:
  - Gynocomfort® (intimate gel: tubes);
  - Fluconazole (capsules);

DERMATOLOGY:
- Aferana® (a series of hair care aids: vials);
- Aciloclov (local and topical cream: tubes);
- Aciloclov (topical ointment: tubes);
- Dexamethasone (topical ointment: tubes);

NEUROLOGY:
- Clorimazole (topical ointment: tubes, jars);
- La-Kry® (a series of anti-inflammatory non-hormonal hair and skin care aids: vials, tubes);
- Rederm® (topical ointment: tubes);
- Terbinafine cream (topical cream: tubes, jars);

STOMAEOLOGY:
- Acep® (a series of mouth care aids: vials, tubes);
- Rheumatology and trauma:
  - Ibuprofen (topical gel: tubes, jars);
  - Rofenopren (topical gel: tubes, jars);
  - Glue BF-6 (topical alcohol solution: vials, tubes);
  - Ortopenum (topical ointment: tubes);

PULMONOLOGY:
- Piroxicam (topical gel: tubes, jars);
- Chondrox® (body cream: tubes);
- Chondroin (topical gel: tubes, jars);
- Chondroin (capsules);

MANUFACTURING FACILITIES

Since the second half of 2015, VERTEX manufactures its drug assortment at the new pharmaceutical factory accommodated on the territory of Novo-Ogaryovsky CEZ in St. Petersburg.
Production area
20,000 sq. m.
Production capacity:
more than 100 million packs of drugs in different dosage forms per year.

The factory provides a full cycle from development to packaging of products in different dosage forms: tablets, capsules, ointments, sprays, creams, etc.
The factory manufactures 150 items of drugs with different doses, in different dosage forms, and different packaging. More than 80 of them are included in the list of vital and essential drugs.
VERTEX assortment is made up of both in-house products and generics from different therapeutic groups.

For the two years of new factory’s operation, 11 of the 18 patents held by the company have been obtained.
In the field of investigations related to creation of innovative pharmaceutical preparations, VERTEX also cooperates with major research institutes and laboratories.

DIRECTIONS OF RESEARCH

Currently the company is conducting preclinical, clinical and pharmacoeconomic researches of drugs, including quasi-original innovative types of drugs.
Investigations and developments in the field of original drugs and last-generation generics are performed in the laboratories of VERTEX pharmaceutical factory.

Since factory opening, the company has begun manufacturing about 20 new items of generic and branded drugs on the site, to be used in cardiology, pulmonology, dermatology, neurology, and other areas of medicine.

For the two years of new factory’s operation, 11 of the 18 patents held by the company have been obtained.
In the field of investigations related to creation of innovative pharmaceutical preparations, VERTEX also cooperates with major research institutes and laboratories.

2016 MANUFACTURE VOLUME
4 472.00 mln rub.
Closed Joint-Stock Company "Medical and Biological Research and Production Complex "Cytomed"

+7 (812) 602-05-93
marketing@cytomed.ru
www.cytomed.ru

SPECIALIZATION IN PRODUCTION
Development and production of original types of drugs, substance production.

LIST OF MANUFACTURED PRODUCTS

- Cytovir-3® (capsules; syrup: vials; powder for oral solution: vials);
- Prostatilen® (rectal suppositories; lyophilisate for solution for intramuscular injection: ampoules);
- Thymogen® (topical cream: tubes; solution for intramuscular injection: ampoules; dosed nasal spray: vials);
- Prostatilen® AC (rectal suppositories);
- Vartocid® (topical cream: tubes).

MANUFACTURING FACILITIES

2 manufacturing sites

- Research and Production Complex on the territory of Novoorlovskaya OEZ in St. Petersburg.
  Production area
  6 000 sq. m.
  Production capacity:
  substances based on animal raw material processing – 1 200 kg per year;
  synthetic peptides – 100 kg per year;
  drug products – 12 mln packs per year.
  The production facility is equipped with a line of 20 reactors for synthesis and purification of pharmaceutical substances, which allows synthesizing peptide chains of any complexity, reactors for production of substances on the basis of biological raw material.
  The drug product shop manufactures drugs in solid, soft, and liquid dosage forms (capsules, powders, creams, syrups, suppositories, solutions, etc.).

- Cytomed OY pharmaceutical factory in Lappenrante (Finland).
  Production area
  1 000 sq. m.
  Production capacity:
  6 mln packs of drug products per year.
  The Cytomed OY manufacturing site accommodates equipment designed for manufacture of different dosage forms: capsules, suppositories, creams, ointments, sprays, ampoules.

DIRECTIONS OF RESEARCH

For performance of research, LLC "CytoNIR" was established within the company structure, which specializes mostly in search, design and experimental study of peptide preparations possessing high pharmacological activity.

The in-house R&D Center is part of the company’s research and production complex situated in OEZ "Novoorlovskaya" in Saint Petersburg.

Clinical trials are carried out with active involvement of specialists from IEM; S. M. Kirov Military Medical Academy; I. P. Pavlov St. Petersburg SMU, the Russian Health Ministry; I. M. Mechnikov NWSMU, the Russian Health Ministry; Pediatric Research and Clinical Center of Infectious Diseases, FMBA of Russia; Immunology Institute MRC, FMBA of Russia.

The company assets have about 11 patented innovative drugs for prophylaxis and treatment of influenza, ARD, immune-deficite therapy, inflammatory processes, rehabilitation of human reproductive health, and so on.
Limited Liability Company “Gematek”

+7 (921) 882-41-05
gematek.ru@bbraun.com
www.gematek.ru

SPECIALIZATION IN PRODUCTION
Manufacture of infusion solutions in polyethylene bottles according to the blow-fill-seal technology.

LIST OF MANUFACTURED PRODUCTS

INFUSION SOLUTIONS:
- Glucose (solution for infusion: vials);
- Sodium chloride (solution for infusion: vials);
- Ringer (solution for infusion: vials);
- Sterofundin isotonic (solution for infusion: bottles).

MANUFACTURING FACILITIES

The factory for manufacture of infusion solutions is located in Tver, at Serdyukovskaya Street, 1.
The total built-up area is 2 hectares.
Two production lines are continuously operating at the factory: BP-305 and BP-324.
Production capacity: 38 mln vials per year.
The infusion solution production cycle consists of preparing raw materials, water, polyethylene granulate for primary packaging; preparation of solution, bottling with the help of Bottelpack machine; cap sealing procedure using KSM sealing machine; sterilization; secondary packaging of products.
The production cycle is based on the "blow-fill-seal" technology realized in Bottelpack automatic bottling machine from Rommelag (Switzerland).

Limited Liability Company “Biosurf”

+7 (812) 596-87-87
info@biosurf.ru
www.biosurf.ru

SPECIALIZATION IN PRODUCTION
Manufacture of in-house developed lung surfactant.

LIST OF MANUFACTURED PRODUCTS

- Surfactant-BL® (lyophilisate for endotracheal, endobronchial, and inhalation administration: vials)

MANUFACTURING FACILITIES

Drug manufacture is arranged on the base of Ac. A. M. Granov RRCRST, the Russian Health Ministry.
St. Petersburg, the village of Pesochny, Leningradskaya st. 70
Production capacity: 20 000 vials per year.

DIRECTIONS OF RESEARCH

Research is carried out on the base of Ac. A. M. Granov RRCRST, the Russian Health Ministry.
PART 1. PRODUCTION OF DRUGS

Limited Liability Company “Samson-Med”

+7 (812) 329-43-66
med2@smmed.ru
www.samsonmed.ru

SPECIALIZATION IN PRODUCTION
Manufacture of active pharmaceutical substances and drug products from endocrine-enzymatic raw material of animal origin.

LIST OF MANUFACTURED PRODUCTS

<table>
<thead>
<tr>
<th>IMMUNOSTIMULANTS:</th>
<th>ANTI-INFLAMMATORY AIDS:</th>
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<tbody>
<tr>
<td>• Timalin® (lyophilisate for solution for intramuscular injection: vials);</td>
<td>• Bile (topical emulsion: bottles);</td>
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<tr>
<th>METABOLIC AIDS:</th>
<th>CHRONIC PROSTATITIS AIDS:</th>
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<tbody>
<tr>
<td>• Cytochrome C (lyophilisate for solution for intravenous and intramuscular injection: vials);</td>
<td>• Samprost (lyophilisate for solution for intramuscular injection: vials);</td>
</tr>
<tr>
<td>• Cytochrome C (ophthalmic drops: vials);</td>
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<tr>
<th>PROTEOLYTIC AIDS:</th>
<th>ENZYMATIC AIDS:</th>
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<tbody>
<tr>
<td>• Ribonuclease (lyophilisate for solution for injection and local application: vials);</td>
<td>• Lydazum (lyophilisate for solution for injection and local application: vials);</td>
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<tr>
<td>• Trypsin (lyophilisate for solution for injection and local application: vials);</td>
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<tr>
<td>• Chymopapain (lyophilisate for local and topical solution: vials);</td>
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<tr>
<td>• Chymotrypsin (lyophilisate for solution for injection and local application: vials);</td>
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MANUFACTURING FACILITIES
St. Petersburg, Moskovskoe shosse, 13
Samson-Med manufacturing sites occupy two buildings where sterile drugs are manufactured (lyophilized drugs for injection), non-sterile drugs (medical bile), and substances.

Four production areas are used in the manufacture – the area of pharmaceutical substances, the area of injection drugs, the area of enzymatic drugs, and the area of bile manufacture.

Samson-Med manufactures its own substances, which allows complete quality control of a drug product from the zero cycle of substance production to packing.

For the production needs, the business produces purified water and water for injection; microbiological and chemical laboratories are functioning.

In addition to manufacture of in-house products, Samson-Med carries out manufacture of drug products, substances, and semi-finished products on basis of contracts.

By 2019, Samson-Med will provisionally open a new manufacturing site in Pushkinskaya Industrial Zone (St. Petersburg), where both manufacture of drugs from the company’s existent product portfolio and increase of output including thanks to extension of the assortment matrix with modern drugs will be set up.

In future, the company will be producing 18 names of drugs.

DIRECTIONS OF RESEARCH
Development of new drugs and dosage forms is carried out by Samson-Med LLC Research and Production Laboratory.

In its work, the laboratory uses cell biotechnologies, chromatography, membrane technologies, analytical methods of different level of complexity.

The company closely cooperate with leading scientific organizations of St. Petersburg: I. I. Mechnikov NWSMU, the Russian Health Ministry; St. Petersburg Medical Academy; I. I. Dzhanelidze St. Petersburg Emergency Care Research Institute; IT of FMBA of Russia; A. N. Bakulev CVS Research Center; St. Petersburg CPA, the Russian Health Ministry; S. M. Kirov Military Medical Academy; I.P.
Closed Joint-Stock Company “Acticomp”

SPECIALIZATION IN PRODUCTION
Manufacture of generic active pharmaceutical substances.

LIST OF MANUFACTURED PRODUCTS

- Azelaic acid;
- Azithromycin;
- Betahistine hydrochloride;
- Glycine;
- Desloratadine;
- Diosmin;
- Indapamide;
- Carvedilol;
- Kerodol trometamin;
- Clarithromycin;
- Clopidogrel hydrodysulfate;
- Levofloxacin;
- Losartan potassium;
- Loratadine;
- Melbhydrolin;
- Meloxicam;
- Perindopril erbumine;
- Ramipril;
- Ribavirin;
- Risperidone;
- Sildenafil citrate;
- Simvastatin;
- Therbinifine hydrochloride;
- Tiloronum;
- Timolol maleate;
- Trimetazidin hydrochloride;
- Troventolum;
- Fenspiride hydrochloride;
- Fluconazole;
- Flupirtinum;
- Cetirizine dihydrochloride;
- Naftifine hydrochloride.

MANUFACTURING FACILITIES
St. Petersburg, Metallostroi settlement
Production area
3 500 sq. m.
Production capacity:
substances — 60 000 kg/year.
The company’s activity relates to industrial production of generic active pharmaceutical substances of a wide range, as well as to development and production of original active pharmaceutical substances according to custom orders of developers and manufacture companies. It is planned to open the second plant in Pushkin (St. Petersburg) by 2020.
Production capacity:
substances — up to 140 000 kg/year.

DIRECTIONS OF RESEARCH
The research laboratories of Acticomp with the total area of 1 200 sq. m are located on the production site of company in Metallostroi settlement (St. Petersburg). The company has 3 fully functional R&D laboratories, 2 of which take part in development of methods of analysis of pharmaceutical substances. Currently there are 12 types of medicine at different development stages that used to treat various diseases of different etymologies. The company’s plans for the next 5 years are to develop new antiviral and antimycotic drugs, treatment drugs for cardiovascular diseases and disorders of blood coagulability, nonsteroidal anti-inflammatory drugs and analgesics, drugs for treatment of metabolic disorders and immunomodulating drugs.
Acticom develops not only latest generation generic types of drugs, but also takes part in development of new domestic drugs in collaboration with manufacturers of finished pharmaceutical products.

2016 MANUFACTURE VOLUME
806.00 mln rub.
Joint-Stock Company “Medpolimer Firm”

PART 1. PRODUCTION OF DRUGS

SPECIALIZATION IN PRODUCTION
Manufacture of infusion solutions in polymer containers.

LIST OF MANUFACTURED PRODUCTS

**INFUSION SOLUTIONS:**
- Haemostabil (solution for infusion: containers);
- Glucose (solution for infusion: containers);
- Konfumin (solution for infusion: containers);
- Mafusol (solution for infusion: containers);
- Sodium chloride (solution for infusion: containers);
- Rheoporyglukin-40 (solution for infusion: containers);
- Ringer (solution for infusion: containers);
- Ringer-Acetate (solution for infusion: containers).

MANUFACTURING FACILITIES
St. Petersburg, Industrial Ave, 86
Manufacture of infusion solution is performed using Italian and German process equipment.
**Production capacity:**
35 mln infusion solutions in polymer containers from multilayered film, per year.

DIRECTIONS OF RESEARCH
Medpolimer carries out research and development aimed at introduction of novel chemical and pharmaceutical technologies, and develops drugs of new generation for parenteral feeding for import substitution purposes.

2016 MANUFACTURE VOLUME
612.9 mln rub.

Joint-Stock Company “Farmproekt”

SPECIALIZATION IN PRODUCTION
Manufacture of non-sterile drugs in solid, soft, and liquid dosage forms.

LIST OF MANUFACTURED PRODUCTS

**SOFT DOSAGE FORMS:**
- Chlorhexidine (vaginal suppositories);
- Ketoprofen (rectal suppositories);

**SOLID DOSAGE FORMS:**
- Vinpocetine (tablets);
- Glimepiride (tablets);
- Drotaverine (tablets);
- Osteron (tablets);
- Pancreatin (tablets);
- Piracetam (capsules);
- Pentoxifylline (tablets);
- Ribavirin (capsules);
- Ranitidine (tablets);
- Fluconazole (capsules).

MANUFACTURING FACILITIES
St. Petersburg, Str. Sofiyskaya, 14
The production facilities
4 500 sq. m.
The Farmproekt JSC portfolio includes more than 20 names of drugs.
**Production capacity:**
tablets – 150 mln per year;
capsules – 25 mln per year.
suppositories — 20 mln per year.

DIRECTIONS OF RESEARCH
Search for generic drugs in demand.

2016 MANUFACTURE VOLUME
650.00 mln rub.
Limited Liability Company
“PHARMACOR PRODUCTION”

SPECIALIZATION IN PRODUCTION
Manufacture of drug products, own INN generics, health supplements, also contracted manufacture in cooperation with European drug manufacturers.

LIST OF MANUFACTURED PRODUCTS

DRUGS:
ANTIHISTAMINE:
• Loratadine (tablets);
ANTITHROMBOTIC:
• Angioflux (capsules; solution for intravenous and intramuscular injection: ampoules);
ANTIMYCOTIC:
• Clotrimazole (vaginal tablets);
ANTIDIABETIC:
• Diabeefarm®-MR (gliclazide) (tablets);
ANTIDIARRHEAL:
• Loperamide (tablets);
• Diosmektit (powder for oral suspension: bags);
ANTITUMORAL:
• Tamoxifen (tablets);
CARDIOVASCULAR:
• Amlodipine (tablets);
• Captopril (tablets);
• Enafarm®-N (tablets);
SPASMOLYTIC:
• Methacin® (tablets);
MEDICINAL COSMETICS:
• Venam® (foot care cream: tubes);
• General-purpose HCC (general-purpose gel: tubes);
• Rostactiv (hair balsam: vials);
NATURAL NON-MEDICINAL AIDS:
ANTIVIRAL:
• Mango Flu Immuno (capsules);
• Echinacea-extra (capsules);
• Solsiept (tablets);
• Vitamors Immuno (powder for oral suspension: bags);
FOR TREATMENT OF GASTROINTESTINAL TRACT:
• Probalance® (powder for oral suspension: bags);
• Probalance® for children (powder for oral suspension: bags);
VENOTONICS:
• Venam® (capsules);
• For prevention of cystitis:
• ProCYSTal® (capsules);
FOR PROPHYLAXIS OF PROSTATITIS:
• Uropalmen® (capsules);
FOR PROPHYLAXIS OF ERECTILE DYSFUNCTION:
• Vialis (capsules);
WEIGHT CORRECTORS:
• Garcinia Green Tea Plus (capsules);
• Garcinia Slim Coffee (powder for oral suspension: bags);
• Cholesterol (capsules);
SOURCE OF CALCIUM:
• Calcium D3 muscle-based (capsules);
CARTILAGE PROTECTORS:
• Glucosemin-chondroitin complex (capsules);
• GCC-Ultra (capsules);
CARDIOVASCULAR:
• Cardiotonic (capsules);
FOR HAIR GROWTH:
• Rostactiv (capsules);
SEDATIVE:
• Relaxen (capsules);
EYE HEALTH:
• Bilberry natural (capsules);
CEREBRAL CIRCULATION:
• Ginkobil (capsules);
• Glycin Ms (powder: bag-sticks);
HEPATOPROTACTORS:
• Artichoke-Extra (capsules);
• Silybum-Extra (capsules);
• OVELux® (capsules);
• Hepa-Ess® (capsules).

DIRECTIONS OF RESEARCH
Development of new medical products (antidiabetic, antiepileptic, antiviral, anti-cold drugs). Development of new BAAs (for sight, female and male health, remedies against arthritis and arthrosis).

MANUFACTURING FACILITIES

2 manufacturing sites situated in St. Petersburg

St. Petersburg, Leninsky Pr., 140, Letter G

Production area
800 sq. m
Manufacture of drugs.
Production capacity:
20 mln blisters;
1.5 mln of volumetric packages;
5 mln sticks.

St. Petersburg, Karpinskogo Street, 16, Letter A

Production area
500 sq. m
Manufacture of health supplements is arranged.
Production capacity:
40 mln capsules (polymeric jars, blister packs);
5 mln sachets;
5.5 mln sticks.
Limited Liability Company “ROSBIO”
+7 (812) 412-14-39
rosbio@yandex.ru
www.rosbio.ru

SPECIALIZATION IN PRODUCTION
Manufacture of liquid dosage forms and substances.

LIST OF MANUFACTURED PRODUCTS

SOLUTIONS:
- Hydrogen peroxide (solution for topical and local application: vials);
- Chlorhexidine (topical solution: vials, bottles, cans);
- Chlorhexidine (topical spray: vials);
- Chlorhexidine bigluconate (solution for local and topical application: vials, jars);
- Chlorhexidine bigluconate (topical solution: vials, bottles, cans);
- Ethanol medical (solution for dosage forms: vials, jars, bottles, cans);
- Ethyl alcohol (topical solution and solution for dosage forms: vials, bottles, cans);

TINCTURES:
- Hawthorn tincture (tincture: vials);
- Valeriana tincture (tincture: vials, dropper vials, jars);
- Calendula tincture (tincture: vials, bottles);
- Melison (tincture: vials, bottles, cans);
- Motherwort tincture (tincture: vials, dropper vials);
- Peony tincture (tincture: vials, bottles, cans);
- Coneflower tincture (tincture: vials, bottles, cans);

SUBSTANCES:
- Hydrogen peroxide medical (substance solution: bottles, cans);
- Medical antiseptic solution (substance solution: bottles, cans);
- Chlorhexidine (solution for dosage forms: bottles, cans);

MEDICAL PRODUCTS:
- Medical antiseptic wipes (impregnant-ethyl alcohol 70%);
- Medical antiseptic wipes (impregnant-alcohol chlorhexidine 0.5%).

DIRECTIONS OF RESEARCH
Medical products are developed on the basis of CJSC “Scientific research institute “ROSBIO”.

2016 MANUFACTURE VOLUME
346.25 mln rub.

2 manufacturing sites,
where ROSBIO produces liquid dosage forms and substances:
St. Petersburg, Melnichnaya Street, 12
Tula Region, Voskresenskoe village, Zavodskaia Street, 1A
Federal State Unitary Institution “State Research Institute of Highly Pure Biopreparations” of the Federal Medical-Biological Agency of the Russian Federation

+7 (812) 235-12-25
secretary@hpb-spb.com
www.hpb-spb.com

SPECIALIZATION IN PRODUCTION
A complete cycle of work from fundamental studies to creation of industrial technologies for manufacture of drugs of new generation on the basis of recombinant and natural proteins, synthetic peptides.

LIST OF MANUFACTURED PRODUCTS

**DRUGS:**
- Allokin (lyophilisate for solution for subcutaneous and intravenous injection: ampoules);
- Betalor® (lyophilisate for solution for subcutaneous and intravenous injection: ampoules);
- Interferal® (lyophilisate for solution for subcutaneous injection: ampoules);
- Repoetinum SP;
- Epocrin® (solution for intravenous and subcutaneous injection: ampoules);

**HEALTH SUPPLEMENTS:**
- Vitaflor® (biomass lyophilisate for oral suspension: vials; tablets);

**SUBSTANCES:**
- Alloferon;
- Glutoxim.

MANUFACTURING FACILITIES
St. Petersburg, st. Pudozhskaya, 7
The production is located in the building of the Institute.

Production area
1 739.5 sq. m.

2016 MANUFACTURE VOLUME
118.15 mln rub.

DIRECTIONS OF RESEARCH
8 laboratories — protein biochemistry, microbiology, medical nanotechnologies, experimental pharmacology and toxicology, peptide chemistry, molecular virology, immunopharmacology, electronic microscopy and spectroscopy — are located in the institute’s building, on the area of 14 000 sq. m.

Research lines:
- creation of innovative immunobiological drugs on the basis of recombinant proteins, therapeutic humanized antibodies and synthetic peptides for diagnostics, treatment, and prevention of socially sensitive diseases, reduction of medical consequences of anthropogenic and natural disasters;
- development of vaccines against actual bacterial and virus infections on the basis of DNA, recombinant and synthetic antigenes with the use of new Russian adjuvants and delivery systems;
- development of selective hemosorbers for detoxification and decontamination of the body at treatment of critical states;
- creation of new pharmaceutical formulations and delivery systems of medical products including spray-type drugs on the basis of recombinant cytokines for treatment of infectious, allergic, and inflammatory diseases of the upper respiratory tract and lungs with the use of nanotechnologies; radioprotectors and toxicides, wound-healing and burn-treating substances.
Closed Joint-Stock Company "PHARMA VAM"

+7 (812) 714-10-10
info@pharmavam.ru
www.pharmavam.ru

SPECIALIZATION IN PRODUCTION
Manufacture of in-house developed drugs Glutoxim and Molixan.

LIST OF MANUFACTURED PRODUCTS
- Glutoxim® (solution for injection: ampoules);
- Molixan® (solution for intravenous and intramuscular injection: ampoules).

MANUFACTURING FACILITIES
St. Petersburg, st. Pskovskaya, 17
Manufacture of Molixan® is arranged on the own site.
Glutoxim® is manufactured both in-house and under contracts on manufacturing sites of State Research Institute of Highly Pure Biopreparations, of Russia (St. Petersburg), State Factory of Medicines (Moscow), Experimental Production of Medical and Biological Preparations Branch of Cardiology Research Medical Center, the Russian Health Ministry (Moscow), CJSC RPC Combitech (Moscow), and LLC Firm FERMENT (Moscow).

Limited Liability Company "Farmamed"

+7 (812) 647-02-46
promo@farmamedspb.ru
www.farmamedspb.ru

SPECIALIZATION IN PRODUCTION
Manufacture of drugs and active pharmaceutical substances.

LIST OF MANUFACTURED PRODUCTS
- Armadin® Beauty (regenerating face cream: vials);
- Valemidin® (alcohol oral drops: vials, dropper vials);
- Valemidin® Plus (syrup: vials);
- Dimexid (topical gel: tubes);
- Nephrmon® Plus (syrup: vials);
- Nitrosprint (dosed subglossal spray: vials);
- Isacardin® (dosed subglossal spray: vials);
- Isacardin® (concentrate for solution for infusion: ampoules).

MANUFACTURING FACILITIES
St. Petersburg, Domostroitelnaya Street, 16.
The company has a license for manufacture of pharmaceutical substances by the methods of isolation from the sources of chemical, biological, animal, and plant origin.

DIRECTIONS OF RESEARCH
Farmamed LLC implements projects in the field of research and development of technologies for synthesis of active pharmaceutical substances, new drugs and dosage forms.
Joint-Stock Company “Pharmaceutical Factory of Saint Petersburg”

+7 (812) 271-29-88
prim@galenopharm.ru
www.galenopharm.ru

SPECIALIZATION IN PRODUCTION
Manufacture of a wide range of medicines and cosmetic products.

LIST OF MANUFACTURED PRODUCTS

**DRUGS FOR BRONCHIAL ASTHMA AND COPD:**
- Beclospir® (aerosol for inhalation: bulb with a dosing valve and spray);
- Cromospir® (aerosol for inhalation: bulb with a dosing valve and spray);
- Fenipra (aerosol for inhalation: bulb with a dosing valve and spray);
- Sodecor® (tincture: vials);

**VITAMINS:**
- Alpha tocopherol acetate (oral solution in oil: vials);
- Retinyl acetate (oral solution and topical solution, oily: vials);
- Vitamin D3 (oral solution in oil: vials);

**DRUGS FOR SKIN DISEASES:**
- Aciclovir (topical ointment: tubes);
- Gervirax® (topical cream: tubes);
- Gyoxyson (topical ointment: tubes);
- Glycerol (topical solution: vials);

**COSMETICS:**
- 5D Five Days (a series of foot care cosmetic aids: vials, tubes);
- 5D Premium Professional (a series of foot care cosmetic aids: vials, tubes);
- DIA (a series of foot skin care cosmetic aids: tubes);
- Aromacosmetics (a series of cosmetic aids: vials, tubes);

**PHARMACY LINE:**
- Grape-seed oil (topical solution: vials);
- Avocado oil (topical solution: vials);
- Jojoba oil (topical solution: vials);
- Apricot oil (topical solution: vials);
- Peach oil (topical solution: vials);
- Almond oil (topical solution: vials);
- Wheat germ oil (topical solution: vials);
- Sesame oil (topical solution: vials);
- Hazelnut oil (topical solution: vials);
- Anticellulite oil (topical solution: vials);
- Breast oil (topical solution: vials);
- Decollete and neck oil (topical solution: vials);

**MANUFACTURING FACILITIES**

St. Petersburg, st. Moiseenko, 24а
Production area
11 600 sq. m.
The list of manufactured products includes about 200 names.
Manufacture of products is carried out on 4 production areas: the aerosol production area; the soft dosage form production area; the solid dosage form production area; the production area for liquid dosage forms and substances.

**Production capacity:**
10-12 mln packs of aerosol inhalators per year.
Dosing aerosol inhalators to be manufactured in future: Salbuspir®, Phenospir, Iprafen, Formospir, Formospir+Beclospir®, Ipraspir.
Dosed powder inhalators to manufactured in future: Budesonide, Formoterol, Formoterol+Budesonide, Salmeterol+Fluticazon.

**DIRECTIONS OF RESEARCH**
The factory territory accommodates the Research Center for Targeted Drug Delivery, which was founded in 2012 for development and launching drugs, health supplements, cosmetics, and other medical and pharmaceutical products.

The strategic direction of development of St. Petersburg Pharmaceutical Factory JSC is the development and manufacture of drugs for bronchial asthma and chronic obstructive lung disease.

The company closely cooperates with St. Petersburg CPA, the Russian Health Ministry; and carries out joint work with other Russian scientific institutions and foreign companies: Human Brain Institute RAS; Nutrition and Biotechnology FRC; Influenza Research Institute, the Russian Health Ministry.
Limited Liability Company “Reasearch and Production Company “BIOTEH”

+7 (812) 603-27-98
biotech@biotech.spb.ru
www.biotech.spb.ru

SPECIALIZATION IN PRODUCTION
Manufacture of sterile drugs.

LIST OF MANUFACTURED PRODUCTS

• Roncoleukinum® (solution for infusion and subcutaneous injection: ampoules).

BIOTECH has a research and production laboratory. The company regularly carries out clinical studies of Roncoleukinum® efficacy. Since the time of marketing authorization for the drug (in 1995), more than 600 clinical trials were performed including multi-center studies involving about 200 medical centers in Russia and CIS countries.

PART 1. PRODUCTION OF DRUGS
Information on product segment of the Cluster of Medical and Pharmaceutical Industries, and Radiation Technologies

Full name of the institution

State Budget Institution of Higher Education “North-Western State Medical University named after I. I. Mechnikov” of the Ministry of Health of the Russian Federation

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<th>AVAILABILITY AND NATURE OF COOPERATION WITH OTHER INSTITUTIONS AND MANUFACTURING ENTERPRISES IN THE TERRITORY OF ST. PETERSBURG</th>
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| Scientific research of the organization is carried out on the basis of Scientific Research Institutes and Research Laboratories of the university:  
  - Scientific Research Institute of Endocrinology (clinical endocrinology, experimental endocrinology, reproductive endocrinology, therapeutic and surgical treatment methods)  
  - P.N. Kashkin Research Institute of Medical Mycology (mycological monitoring and biology of fungi, molecular genetic microbiology, immunology and allergology, pathomorphology and cytology)  
  - Central Scientific Research Laboratory (cytophysiology and regeneration of endocrine gastroenteropancreatic system on different stages of ontogeny and phylogeny under the conditions of experimental and clinical pathology; the role of nonspecific body resistance in aetiopathogenesis; study of the pharmacokinetics specific of medicaments in patients of specific categories, as well as new medicaments; study of pharmacokinetics)  
  - Scientific Research Laboratory of Innovative Technologies of Medical Navigation (development of portable medical navigation system “Compass” (PC assistant) providing technological support to a practicing doctor in any conditions of medical care)  
  - Scientific Research Laboratory of High Laser and Magnetic Technologies (study of innovative technologies of electromagnetic radiation in the field of medicine)  
  - Scientific Research Laboratory of Cell Technologies (research in the field of regenerative medicine, application of cell technologies, genetic and telomeric diagnostics)  
  - Scientific Research Laboratory of Innovative Methods of Functional Diagnostics (study of endothelium dysfunction, hemodynamic evaluation of liver, implementation of the polyhepatography methodology for diagnosis and treatment of patients with chronic liver diseases)  
  - University Research Dental Center (approbation and adoption of new technologies, methods and materials)  
  - Scientific Research Laboratory of Complex Hygiene and Epidemiology Problems (study of the impact of hazardous and dangerous habitat factors on the human body and the development of innovative methods for integral assessment, prediction and effective prevention of diseases on this basis)  
  - Scientific Research Laboratory of Arctic Medicine (development and implementation of new strategies, methods and recommendations for improvement of public health management of the population living in ecologically unfavorable areas of the Arctic zone of the Russian Federation) | Agreements on cooperation in the field of scientific research with the following research institutions:  
  - Saint Petersburg State Electrotechnical University “LETI” named after V.I. Ulianov (Lenin)  
  - FSBI “I.P. Pavlov Institute of Physiology”, RAS  
  - SBEI HPE “Saint Petersburg State Chemical Pharmaceutical Academy” of the Ministry of Health of the Russian Federation (R&D)  
  - FSBI “Research Institute of Children’s Infections” of FMBA of Russia (R&D)  
  - The Research Institute of Obstetrics and Gynecology named after D.O. Otto, RAS  
  - Arctic and Antarctic Research Institute, Roshydromet  
  - St. Petersburg Institute of Bioregulation and Gerontology of the North-Western Branch of the Russian Academy of Medical Sciences  
  - Research Institute of Emergency Medicine named after I.I. Dzhanelidze  
Agreements on cooperation with the following state institutions and enterprises:  
  - Department of the Federal Migration Service  
  - Federal State Budgetary Institution of Science “Federal Scientific Center for Medical and Preventive Health Risk Management Technologies”  
  - Federal Service for Surveillance on Consumer Rights Protection and Human Wellbeing  
  - Federal Service for Surveillance on Consumer Rights Protection and Human Wellbeing in Leningrad Oblast  
  - General and Professional Education Committee of Leningrad Oblast  
  - Center for Biotic Medicine (Moscow)  
  - FSUE “Research Institute of Hygiene, Occupational Pathology and Human Ecology” of the Federal Medical Biological Agency  
  - S.P. Botkin City Clinical Hospital |
State Budgetary Educational Institution of Higher Education “Saint Petersburg State Chemical Pharmaceutical Academy” of the Ministry of Health of the Russian Federation (SBEI HPE SPCPA of the Ministry of Health of Russia)

**SPECIALIZATION OF CURRENT RESEARCH AND DEVELOPMENT IN THE SPHERE OF MEDICINE, PHARMACEUTICS AND MEDICAL EQUIPMENT**

1. Analysis of biologically active substances (BAS) of synthetic and plant origin, products of microbial synthesis according to approved methods
2. Development for qualitative and quantitative determination of BAS by chromatographic, spectral, electrochemical and chemical methods
3. Development of production technologies and pharmacological evaluation of new or modified pharmaceutical substances and medicaments
4. Pharmacological and microbiological research
5. Improvement of drug provision in the public health system
6. Study of the ways of pharmaceutical education modernization
7. Study of the main directions of the pharmaceutical market regulation

**AVAILABILITY AND NATURE OF COOPERATION WITH OTHER INSTITUTIONS AND MANUFACTURING ENTERPRISES IN THE TERRITORY OF ST. PETERSBURG**

Cooperation in the field of scientific and research developments, and education. Agreements on cooperation have been signed with the following pharmaceutical companies:
- "VEROFARM" CJSC
- "Pharmaceutical Factory of St. Petersburg" JSC
- "BIOKAD" CJSC
- "STPC "POLYSAN" LLC
- "FGUP SDTB "Technolog"
- "MBRPC “Cytomed” CJSC
- "Farmproekt” JSC
- "PHARMASYNTEZ-NORD” JSC
- "North Star" CJSC and others

**Key agreements 2015-2016:**
- Agreement on cooperation in the field of personnel training between SPCPA and “ROSTA” group of companies
- Agreement on the establishment of a chemical-pharmaceutical scientific and educational medical cluster
- Memorandum of Understanding on Academic Cooperation between SPCPA and Erzincan University (Turkey)
- Agreement on the establishment of the Medical Science and Education Cluster “Translational Medicine”
- Memorandum of Understanding on Academic Cooperation between SPCPA and FSAEI HE “Kazansky (Privolzhsky) Federal University”
- Concept of cooperation between SPCPA and Educational Establishment “Vitebsk State Order of Peoples’ Friendship Medical University”

Federal State Autonomous Educational Institution of Higher Education “Peter the Great St. Petersburg Polytechnic University”

**SPECIALIZATION OF CURRENT RESEARCH AND DEVELOPMENT IN THE SPHERE OF MEDICINE, PHARMACEUTICS AND MEDICAL EQUIPMENT**

Scientific research at the Polytechnic University is focused on the search for innovative solutions to the most significant problems in the following fields of science, equipment and technology:

- Nuclear physics, condensed matter physics, plasma physics and controlled thermonuclear fusion, radiophysics and electronics, physical and chemical bases of the organization of biological systems, medical physics and equipment, physical chemistry

**AVAILABILITY AND NATURE OF COOPERATION WITH OTHER INSTITUTIONS AND MANUFACTURING ENTERPRISES IN THE TERRITORY OF ST. PETERSBURG**

Universities-partners by regions:
- Australia and Oceania (number of agreements – 3)
- Asia (number of agreements – 90)
- America (number of agreements – 24)
- Africa (number of agreements – 6)
- Europe (number of agreements – 204)

Cooperation with leading scientific and educational institutions and companies of St. Petersburg is carried out within the framework of the research complex “Nanobiotechnology”:
- St. Petersburg State University;
- I. P. Pavlov First St. Petersburg State Medical University;
- Federal State Unitary Enterprise “State research Institute of highly pure biopreparations” of the Federal Medical and Biological Agency
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| 1. Development of fundamental and applied innovative scientific platforms in order to reduce infant mortality and improve the health of pregnant women and mothers | Contracts on partnership and cooperation with foreign medical institutions:  
   - The University of Texas Health Science Center at Houston (Houston, USA)  
   - The Democritus University of Thrace (Alexandroupolis, Greece)  
   - Belarusian State Medical University (Minsk)  
   - Yerevan State Medical University after Mkhitar Heratsi |
| 2. Development of fundamental and applied innovative scientific research in the field of early diagnosis and correction of hereditary deformity and hereditary deformity in children |  |
| 3. Development of fundamental and applied innovative scientific research in the field of maxillofacial surgery of congenital malformations |  |
| 4. Formation of disciplines of children’s dentistry as a separate linear scientific platform |  |
| 5. Development of fundamental and applied innovative scientific research in the field of psychological characteristics of children and adults under normal and under pathological conditions, including a multidisciplinary study of the state of underdevelopment of speech in children, as a form of mental dysontogenesis |  |
| 6. Development of a biophysical research platform at the molecular and cellular levels, as well as the biophysical study of sense organs and complex systems, as a combination of fundamental, scientific and applied research with practical health care |  |
| 7. Development of fundamental and applied innovative scientific research in the field of ecogenetics of childhood for improvement of the quality of life of the population in difficult environmental situation |  |
| 8. Development of fundamental and applied innovative scientific research to create a computer model of the human body to support medical decisions in order to reduce the number of medical errors |  |
| 9. Participation in the development of standards for the provision of medical care on the basis of studies that meet the requirements of evidence-based medicine |  |
| 10. Influence of anatomical and functional, psychosomatic and medico-social factors on the health of the mother and child |  |
| 11. Development and production of patient-specific organs |  |
Full name of the institution

State Budgetary Educational Institution of Higher Education “I.P. Pavlov First Saint Petersburg State Medical University” of the Ministry of Health of the Russian Federation

SPECIALIZATION OF CURRENT RESEARCH AND DEVELOPMENT IN THE SPHERE OF MEDICINE, PHARMACEUTICS AND MEDICAL EQUIPMENT

Research is conducted in the following specialized fields:

- Improvement of the diagnostics and methods of treatment of vascular heart diseases
- Study of chronic nonspecific lung diseases
- Increasing the level of safety and efficacy of pharmacotherapy
- Creation of improved pharmaceutical forms

AVAILABILITY AND NATURE OF COOPERATION WITH OTHER INSTITUTIONS AND MANUFACTURING ENTERPRISES IN THE TERRITORY OF ST. PETERSBURG

Main partners:

- The University of Groningen (Netherlands)
- Caroline Institute (Sweden)
- Charité University Medical Center (Germany)
- The International Agency for Research on Cancer of the World Health Organization (France)
- The University of Kuopio (Finland)
- Nippon Medical School (Japan)
- National Institute of Health (USA)

International agreements on scientific relations:

- American Association of Clinical Chemistry, USA (laboratory diagnostics)
- The Russian-Chinese Investment Fund
- Hanjin Medical University, P.R. China (stomatology)
- Chengdu University, PRC
- Vanderbilt University (USA)

Full name of the institution

State Budgetary Educational Institution of Higher Education “St. Petersburg State Technological Institute (technical university)”

SPECIALIZATION OF CURRENT RESEARCH AND DEVELOPMENT IN THE SPHERE OF MEDICINE, PHARMACEUTICS AND MEDICAL EQUIPMENT

Development of an innovative program for the modernization of chemical industry enterprises in the following areas:

- Functional materials of nano-biophotonics and polymer electronics for energy-efficient light sources, medical diagnostics and therapy
- Active pharmaceuticals, replacement of imported generic drugs by those produced in Russia
- A unique biomedical platform that allows to receive innovative materials for medicine, veterinary medicine and agro-biotechnology

AVAILABILITY AND NATURE OF COOPERATION WITH OTHER INSTITUTIONS AND MANUFACTURING ENTERPRISES IN THE TERRITORY OF ST. PETERSBURG

Agreements on cooperation and partnership with leading industry enterprises of St. Petersburg:

- “BIOCAD” CJSC
- “STPC POLYSAN” LLC
- “SRIOEP”, OJSC
- “NEOHIM”, LLC
- “SPb IZOTOP”, JSC
- “Single IP Management Center”, LLC
- FBI “Center for Laboratory Analysis and Technical Measurements”

Contracts with foreign scientific and educational institutions:

France:

- Ecole Nationale Supérieure des Mines d’Alès
- University of Maine, Leman
- Paul Sabatier University, Toulouse

Germany:

- Technical University of Berlin
- Technical University of Dresden
- Karlsruhe Institute of Technology

Finland:

- Abo Akademi University, Turku

Sweden:

- Royal Institute of Technology, Stockholm

Greece:

- The Cyprus Technological Institute

China:

- Beijing Institute of Technology
- Jilin Teachers Institute of Engineering and Technology
- Tianjin University

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**State Budget Institution of Higher Education “Saint Petersburg State University”**

**SPECIALIZATION OF CURRENT RESEARCH AND DEVELOPMENT IN THE SPHERE OF MEDICINE, PHARMACEUTICS AND MEDICAL EQUIPMENT**

1. Center for Diagnostics of Functional Materials for Medicine, Pharmacology and Nanoelectronics. Analytical Resource Center “Centre for Diagnostics of Functional Materials for Medicine, Pharmacology and Nanoelectronics” of the Saint Petersburg State University is focused on the diagnosis and study of the properties of new functional materials used in medicine and medical technologies, pharmacology, acousto- and microelectronics.

2. In 2013, the Resource Center «Development of Molecular and Cell Technologies» was opened at the St. Petersburg State University in the priority direction of the Development Program «Biomedicine and Human Health». The center is intended for use by university research workers and outside organizations with the purpose of solving urgent issues of biomedicine, such as: investigation of regularities and mechanisms of immune responses, development of the fundamental foundations of regenerative medicine, studying the issues of aging biology and revitalization, and research in the field of biology of malignant neoplasms, neurodegenerative diseases.

3. The Resource Center «Cultivation of microorganisms» provides equipment and qualified technical personnel for the maintenance of live cultures of eukaryotic microbes, cyanobacteria and small aquatic invertebrates. The “core” of the center are three large collections of cultures created at the St. Petersburg State University by the many years of efforts of a number of well-known specialists and scientific teams:
   - Cultures collection of cyanobacteria, algae and algae parasites, created in laboratory of Microbiology (about 1500 strains)
   - Cultures collection of symbiont-containing infusoria of the laboratory of Karyology of unicellular organisms (about 4500 strains)
   - A rapidly developing culture collection of heterotrophic protista of the Department of Invertebrate Zoology (about 400 strains)

4. “Center for collective use of equipment – Hromas” is an analytical resource center of St. Petersburg State University, which is a part of the infrastructure of the Science Park of St. Petersburg State University and specializes in research in the field of cell biology, molecular cytogenetics, developmental biology, microbiology and other areas of biomedical sciences.

**AVAILABILITY AND NATURE OF COOPERATION WITH OTHER INSTITUTIONS AND MANUFACTURING ENTERPRISES IN THE TERRITORY OF ST. PETERSBURG**

St. Petersburg State University actively cooperates with many leading foreign educational and scientific centers. Among the permanent partners are the largest universities located in many countries of the world.

**The closest contacts are with the medical faculties:**
- Ernst Moritz Arndt University of Greifswald
- Leipzig University
- The University of Jena
- The University Duisburg-Essen (Germany)
- The University of Strasbourg (France)
- The University of Tampere (Finland)
- with arolinska Institute (Sweden)
- with Johns Hopkins University
- with Yale University (USA)

Now there are contacts with the universities of Hamburg, Munich, Trieste, Los Angeles.

**Also, cooperation with leading industry enterprises is carried out, including enterprises of St. Petersburg:**
- "Geropharm", Group of Companies
- "Samson-Med" LLC
- "Biont" LLC
- "BIOCAD" CJSC
- "Akrichin" LLC
- "STPC “POLYSAN” LLC
- "Farnuproekt" JSC
- "North Star" CJSC
- NPO "Petrovax"
- "Biosintez" JSC
- "Takeda Pharmaceuticals” LLC
- "Acticomp" CJSC and others

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INFORMATION ON PRODUCT SEGMENT OF THE CLUSTER OF MEDICAL AND PHARMACEUTICAL INDUSTRIES, AND RADIATION TECHNOLOGIES
Pharma keynote trends in St. Petersburg in 2017 and growth prospects until 2020

MAJOR TRENDS OF THE PHARMACEUTICAL INDUSTRY MARKET IN ST. PETERSBURG:

1. Modernization of existing productions and creation of new ones both by large market participants and new entrants (localization of production by foreign companies).

2. Development and production of new drugs, the creation of new laboratories, increasing the number and quality of scientific developments.

3. Increase in the production of generic drugs, conclusion of new contracts with foreign manufacturers for the purchase of licenses to produce drugs.

4. The deterioration of the competitive situation due to the stabilization of the financial environment and the return of the positions of foreign drugs, and the increase in domestic products value.

5. Increase in the share of public procurement in the marketing system of medicines.

6. Strengthening of the state support of drug establishments under the “Development of the pharmaceutical and medical industry for the period up to 2020 and beyond” program.

7. Increasing the export potential of domestic medicinal products through the production of new innovative drugs.

THE FOLLOWING PUBLIC INITIATIVES ALSO HAVE AN IMPACT ON THE MARKET:

- Implementation of GMP (Good Manufacture Practice) standards as one of the main forms of quality control of drugs.

- Marking of medical products with check digits, allowing to monitor the movement of medicines from the manufacturer to the final customer and to identify adulterated products.
Forecasts of market participants for 2017 are generally positive. Most market participants forecast the continuation of the trend for brisk growth of pharmaceutical companies in St. Petersburg. For example, “BIOCAD” CJSC plans to increase its sales by 40% in 2017 due to participation in the public procurement system and the release of two new drugs.

Also, the opening of new production facilities will affect the growth of sales and production volumes.

In May 2017 in the area of St. Petersburg Special Economic Zone there was an opening of the factory of “Pharmasintez-Nord” JSC, until the end of the current year is planned opening of the first stage of the “GEROPHARM” LLC factory. The opening of second stage of production of genetically engineered human insulin will take part in the end of 2018. Also in the current year the construction of “MBNPK “Cytomed” CJSC factory has been finished, and it’s opening is planned for 2018 year.

“Grotex” LLC is planning to construct the third stage of factory in 2018, in April 2017 there were launched 8 new lanes of drugs production.

“BIOCAD” CJSC is implementing two investment projects for the production of biological, chemical substances and finished dosage forms. By 2020, it is planned to organize a full cycle of production on an industrial scale.

In spring 2017, the St. Petersburg government decided to increase the “Novoorlovskaya” area by 53 hectares in order to provide territories for new pharmaceutical plants. Thus, the zone for the construction of new production facilities is increasing, which provides opportunities for a potential increase in the volume of production and sales of pharmaceuticals.

According to the Ministry of Industry and Trade of Russia, in 2017 Russian Federation expects an increase in drug production by 20% in physical terms and 8% in cash.

Thus, it is possible to forecast the continuation of the current growth rates of cluster enterprises' development subject to the preservation of the effect of factors that have a positive effect on the industry.
Highlights of the medical equipment manufacturers, participating in the Cluster of Medical and Pharmaceutical Industries, and Radiation Technologies for the period 2015-2017

LLC “ALCOM Medica”

2015

AUGUST

ALCOM Medica has developed a design solution for the joint operation of the Riester All Pupil II (Germany) ophthalmoscope with an attachment for PFC-01 photocoagulation.

2017

MAY

On the equipment of the company, made in a single copy specially for the veterinary clinic, a unique operation was performed for a dog with dislocation of the lens and glaucoma.

AUGUST

The Company introduces on the market the device PDI-01, designed to control the power density of laser radiation during periodic laser procedures.

LLC “LATTANTE”

2016

APRIL

The sales of the universal “IRIS” device, developed by the company for heating infusion solutions, blood, blood substitutes, oxygen and any medical environment.

JULY

LATTANTE registered the patient’s heating device “CROCUS”, designed to treat and prevent hypothermia and related complications.

LLC “Lanamedica”

2017

MARCH

Lanamedica changed the design of the patient’s breathing tube for the SPIROLAN computer spirograph, which became easily dismantled for the possibility of sanitation.

LLC “Dipole structure”

2016

APRIL

The company presented a new unique device IR-Dipole, designed for contactless treatment of diseases with the help of controlled IR-radiation generator. The device has no analogues in the world, it was tested in the FSBI "Federal V.A. Almazov North-West Medical Research Centre" and helped 700 patients of the center in the treatment of a wide range of diseases such as diabetes, burns, injuries, and even was used to bring out of a coma in critical conditions.

CJSC “MEDITEK “ZT”

2015

MAY

Expansion of the assortment – intravascular catheters (peripheral catheters, intravenous systems, butterfly needles).
The company expanded the range of new products — tubes for respiratory support, anesthesiology and resuscitation.

Expansion of the assortment — tubes for catheterization, anesthesiology and resuscitation (endotracheal tubes, tracheostomy tubes, masks, laryngeal airways, nasal cannula, probes, catheters).

The Company received the certificate of compliance of the quality management system with the requirements of GOST ISO 9001-2011 (ISO 9001:2008).

Developed by the Metromed kit for quality control of immunoenzymometric and biochemical analyzers took the second place in the competition for the award of the Government of St. Petersburg for the best innovative product in the field of medicine, biotechnology and pharmaceutics.

Start of production and delivery of new company’s development “Kit of calibration light filters KSP-03”. The improved kit provides calibration of both as photometric plate and biochemical analyzers, which contain interference light filters, and spectrophotometric plate analyzers equipped with a monochromator.

The Company has developed super-litter for transportation of victims, which allow to maintain the vital functions of the patient for eight hours and even provide oxygen to the seriously ill patients during 40 minutes. One of the modifications of super-litter has a vacuum mattress, which fixes a person (for example, seriously injured).

The patent “Method of treatment of limb fractures” was obtained.

MICARD-LANA successfully passed the certification of the quality management system for compliance with the requirements of ISO-13485:2016.
CJSC “MELP”

2017

**JUNE**  MELP concluded an agreement with “Ecomon” LLP (Astana) on the distribution of its products in the territory of Kazakhstan.

LLC “AKSI-GROUP”

2015

**AUGUST**  Aksioma supplied 40 sets of endoscopic equipment to Uzbekistan.

**SEPTEMBER**  Within the framework of the contract concluded with the Ministry of Health of the Republic of Mordovia, the company equipped 19 medical and prophylactic institutions of the Republic of Mordovia with new video endoscopes.

**OCTOBER**  New endoscopic equipment has been installed by Aksioma in the Kamyzyak District Hospital of the Astrakhan Region.

2016

**FEBRUARY**  Aksioma acquired a high-tech machining center with NC MILLSTAR BMV 850, which allowed to expand the company’s range, as well as to shorten the production time.

LLC “SinCor”

2016

**OCTOBER**  The beginning of the research and development work for the purpose of developing new equipment based on the method of bioacoustic correction.

2017

**MAY**  Signing of the agreement with “BelNewMed” LLC (Belarus), the beginning of registration of equipment based on the method of bioacoustic correction “Synchro-S” in the territory of Belarus.

**SEPTEMBER**  Signing of the agreement with “Prognoz” LLC (Uzbekistan), beginning of registration of equipment based on the method of bioacoustic correction “Synchro-S” in the territory of Uzbekistan.

Development and production of a prototype of new products on the basis of the method of bioacoustic correction for technical, preclinical, clinical and other tests aimed at registering the device on the territory of the Russian Federation.

CJSC “Eltech-Med”

2015

**SEPTEMBER**  Representation of the company in Finland was opened.

2016

**OCTOBER**  The Company has developed a high-voltage power supply for X-ray tubes, X-ray diffraction of various objects are carried out.

2017

**APRIL**  ELTEHC-MED received a license for the production of a tomograph.
**LLC “EFA Medica”**

**2016**

*JANUARY*  EFA Medica concluded an agreement with the Institute of Biomedical Problems of the RAS for the development of new scientific equipment, which is planned for space launch in 2022.

**2017**

*JULY*  An agreement is signed between “EFA Medica” LLC and “NTC Promtehaero” JSC on cooperation in the production and sale of medical equipment.

**CJSC “ORION MEDIC”**

**2015**

*JANUARY*  ORION MEDIK brought to the market a line of laboratory equipment in the field of histology, cytology and anatomical pathology (the first developed laboratory equipment including apparatus for histological processing of tissues “AGOT-1”, automatic swab staining machine “AOM-1” and rotary microtomes of the “Rotmik” series).

*AUGUST*  ORION MEDIK received 3 patents for industrial designs of developed medical equipment. In the field of surgery, the company received an exclusive right to manufacture and sell in Russia a worthy analogue to foreign operating microscopes — Malovisor, intended for microsurgical interventions in the field of ophthalmic, neuro- and ENT surgery. The “AOM-1” automatic swab staining machine allows simultaneous processing of several stands on five different programs, and also reduces the staining time by automating the process with minimal operator involvement. “AGOT-1” apparatus is intended for the preparation of specimen for the purpose of further microscopic examination: fixation, dehydration, clarification in solutions, impregnation in paraffin and other types of chemical treatment.

**2016**

*MAY*  ORION MEDIK has received a patent for the industrial model of machine for washing, disinfecting and drying laboratory glassware, surgical and other instruments.

**2017**

*JUNE*  ORION MEDIK has received a registration certificate for Confocal Laser Scanning Microscopy (CLSM). Microscope is designed to receive high-resolution and high-contrast multidimensional fluorescent image using in clinical-diagnostic centers, medical research institutes and other health facilities. The microscope creates an enlarged image of the research object (fixed object on a slide or tissue cultures in laboratory glassware) by confocal microscopy method with an aim of cellular diagnostics in case of infertility, cardiovascular, oncological and other diseases.

*AUGUST*  ORION MEDIK has completed the construction of a plant for the production of medical equipment in the territory of the SEZ “Novoorlovskaya” in St. Petersburg with a total area of 7 500 sq. m. The company plans to become the largest research and production site for the manufacture of laboratory and medical equipment in the North-Western Federal District.

**LLC “RPA “Nephron”**

**2016**

*SEPTEMBER*  Connected with the increase in the number of orders, to increase production capacity the second production site was designed, and opened on 1 of September, 2016, fully equipped in accordance with the requirements of GMP. The presence of 2 factories, except for the actual increase in production capacity, increases our potential for a flexible response to the changing requests of consumers and reduces the time of making concentrates.
Comparative performance analysis of the medical equipment manufacturers, participating in the Cluster of Medical and Pharmaceutical Industries, and Radiation Technologies for the period 2014-2016

In 2016, participants in the medical and pharmaceutical cluster produced medical equipment totaling 930.4 mln rub., or 33% of the total volume of the market produced in St. Petersburg. At the same time, the share of medical and pharmaceutical cluster companies in the St. Petersburg medical equipment market decreased by 9% compared to 2015, due to a reduction in the production of medical equipment by the largest participants in the cluster, — "MEDITEC "ZT" CJSC, "Neo Company” LLC, “ORION MEDIC” CJSC and “RPC "AZIMUT” LLC.

The positive trend in the growth of the production of medical equipment by the companies of the medical and pharmaceutical cluster in the period from 2014 to 2015 from 19% to 49% of the volume of production in the territory of St. Petersburg is associated with a significant increase in the number of cluster participants in 2015. In general, the analysis of performance indicators of participants in the medical-pharmaceutical cluster shows an annual decline in the production of medical equipment by 4%.

Despite a significant reduction in production during the period from 2015 to 2016, "MEDITEC "ZT" CJSC, “Neo Company” LLC, “Orion Medic” CJSC and “RPC "AZIMUT” LLC in 2016 continued to occupy leading positions in the medical and pharmaceutical cluster, producing in total 52% of medical equipment in monetary terms.

The volume of sales of medical equipment by the companies of the medical and pharmaceutical cluster in 2016 amounted to 1 223.6 mln rub., or 22% of the total volume of medical equipment sold by companies located on the territory of St. Petersburg. The main share of sales of medical equipment in the medical and pharmaceutical cluster belongs to “MEDITEC "ZT" CJSC, ”Neo Company” LLC, “Orion Medic” CJSC and “RPC "AZIMUT” LLC, which collectively sold 51% of cluster products in 2016 for the amount of 622.1 mln rub.
The main volume of sales of medical equipment, produced by companies of the medical and pharmaceutical cluster, falls on the domestic market. In 2016, the share of exports of cluster products amounted to only 1.3%, however, having increased by 0.6% compared to 2015. The share of medical equipment shipped by cluster companies in the territory of St. Petersburg in 2016 amounted to 64.7% of the total volume of cluster products, 34% of the volume of sales of the cluster in monetary terms was in other regions of Russia.

In 2016, companies of the medical and pharmaceutical cluster producing medical equipment paid taxes to the federal and regional budgets for a total of 32.5 mln rub., of which 13.2 mln rub., or 41% of the total taxes were paid by “RPC "AZIMUT" LLC, “NPP VOLO” LLC and “Neo Company” LLC.

The largest taxpayers for the amount of tax paid to the budget of St. Petersburg in 2016, mln rub.

- LLC “RPC "AZIMUT"”
- LLC “RRA "VOLO””
- “Neo" Co. Ltd
- Other participants of the cluster

The largest taxpayers on the amount of tax paid to the budget of the Russian Federation in 2016, mln rub.

- LLC “RPC "AZIMUT"”
- LLC “RRA "VOLO””
- “Neo" Co. Ltd
- Other participants of the cluster
Comparative analysis of medical equipment manufacturing in the federal districts of the Russian Federation for the period 2014-2016

At the end of 2016, the production of medical equipment in the Russian Federation amounted to 41 billion rubles, which is 6% higher than the same indicator for 2015. The rate of development of the industry has significantly decreased: in 2016, the market grew by 6% compared to the previous year, while in 2015 the growth was 21% compared with 2014.

The major share of the domestic medical equipment produced in the Central Federal District. In 2016, the production of medical equipment in the district amounted to 22.3 bln rub., or 55% of the total Russian production. The share of production in the Volga, Northwestern and Urals federal districts is approximately the same and equal to 13, 12 and 11%, respectively. Such a distribution of the production of medical equipment is associated with the location of the main market participants, whose parent companies are located primarily in Moscow, especially branches of international production corporations.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>CFD</td>
<td>22%</td>
<td>-3%</td>
</tr>
<tr>
<td>NWFD</td>
<td>6%</td>
<td>146%</td>
</tr>
<tr>
<td>SFD</td>
<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td>NCFD</td>
<td>45%</td>
<td>-4%</td>
</tr>
<tr>
<td>PFD</td>
<td>32%</td>
<td>2%</td>
</tr>
<tr>
<td>UFD</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>NFD</td>
<td>22%</td>
<td>-8%</td>
</tr>
<tr>
<td>FEFD</td>
<td>18%</td>
<td>6%</td>
</tr>
</tbody>
</table>

The growth rate of the production of medical equipment in the Russian Federation, from 2014-2016


<table>
<thead>
<tr>
<th>Year</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>31.9</td>
</tr>
<tr>
<td>2015</td>
<td>38.5</td>
</tr>
<tr>
<td>2016</td>
<td>41.0</td>
</tr>
</tbody>
</table>

Dynamics of the amount of production and sales of medical equipment in Russian Federation from 2014 to 2016, bln rub.
In 2016, the volume of production of medical equipment in St. Petersburg in monetary terms increased more than 2 times compared with 2015 and reached 2.8 bln rub. The increase in production volumes is due to the increase in demand for medical equipment in St. Petersburg, which is obviously due to the renewal of the medical equipment in the health facilities of St. Petersburg and the increase in the volume of public procurement of medical equipment in this period. An important role was played by the establishment of restrictions on the procurement of certain types of medical equipment originating from foreign countries by introducing the “third is a crowd” rule in 2015, which significantly improved the position of manufacturers of medical equipment that increased their share in the supply of medical equipment to public health facilities.

In 2016, the share in the volume of medical equipment production in St. Petersburg in the all-Russian volume was 7%, an increase of 4% compared to the previous year. At the same time, this share in the Northwestern Federal District decreased by 9% relative to the volume of production in general and amounted 58% in 2016, which indicates a greater activity of enterprises located in other regions of the Northwestern Federal District.
Information on product segment of the Cluster of Medical and Pharmaceutical Industries, and Radiation Technologies

Closed Joint-Stock Company “MEDITEK ZT”

+7 (812) 622-10-15
info@mediteczt.ru
www.mediteczt.ru

SPECIALIZATION IN PRODUCTION
Development and manufacture of equipment for the disposal of medical waste, consumables for handling medical waste, modular buildings-areas for the processing of medical waste.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT FOR DISPOSAL OF MEDICAL WASTE:
• The utilizer of medical waste “Baltner®”;
• The utilizer of medical waste “Baltner® — SH”;
• The utilizer of medical waste “Baltner® II — SH”;
• The utilizer of medical waste “Baltner® — Termoshreder”;
• Modular building-site “Baltner®”.

Limited Liability Company «TMT»

+7(812)718-69-51
tmt-info@mail.ru
www.tmt-medtech.com

SPECIALIZATION IN PRODUCTION
Design, development and production of medical emergency medical equipment, medicine.

LIST OF MANUFACTURED PRODUCTS

APPARATUS FOR ARTIFICIAL VENTILATION OF LUNGS:
• A-IVL/VVL-TMT;
• Rythm-100;

INHALATION ANAESTHESIA APPARATUS:
• ANpSP-01-TMT.

MEANS OF MOVEMENT AND TRANSPORT OF PATIENTS:
• stretcher;
• trolley;
• soft stretchers;
• receiving device.
Closed Joint-Stock Company "ORION MEDIC"

**SPECIALIZATION IN PRODUCTION**

Development and production of modern high-tech equipment for various fields of medicine.

<table>
<thead>
<tr>
<th>LIST OF MANUFACTURED PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GYNECOLOGICAL EQUIPMENT:</strong></td>
</tr>
<tr>
<td>• Modular colposcopes KM-1, KM-2;</td>
</tr>
<tr>
<td><strong>OPHTHALMIC EQUIPMENT:</strong></td>
</tr>
<tr>
<td>• Sets of trial spectacle lenses and ophthalmological products NPOL-87 “Orion M”, NPOL-139 “Orion M”, NPOLb-254 “Orion M” (together with a set of sciascopy frames);</td>
</tr>
<tr>
<td>• Trial simplified frames OPOL-2 “SP8”, OPOL-4 “SP9”;</td>
</tr>
<tr>
<td>• Slit lamps (3-position, 5-position);</td>
</tr>
<tr>
<td>• Ophthalmologic treatment-diagnostic complex KOLD-1;</td>
</tr>
<tr>
<td>• Operating modular ophthalmological microscope MICROM-OF1;</td>
</tr>
<tr>
<td><strong>LABORATORY EQUIPMENT FOR PATANATOMY, HISTOLOGY AND CYTOLOGY:</strong></td>
</tr>
<tr>
<td>• Rotary microtomes &quot;Rotnik 1&quot;, &quot;Rotnik 2M&quot;, &quot;Rotnik 2A&quot;, &quot;Rotnik ZP&quot;;</td>
</tr>
<tr>
<td>• Sledge microtom MC-3;</td>
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<tr>
<td>• Apparatus for histological processing of tissues AGOT-1;</td>
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<tr>
<td><strong>SURGICAL EQUIPMENT:</strong></td>
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<tr>
<td>• Automatic swab staining machine АОМ-1;</td>
</tr>
<tr>
<td>• Thermostats for histology TEG-1B, TEG-1C, TEG-1SPK;</td>
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<tr>
<td>• The washing and disinfection machine MMD-1;</td>
</tr>
<tr>
<td>• Confocal Laser Scanning Microscopy (CLSM);</td>
</tr>
<tr>
<td><strong>OTORHINOLARYNGOLOGICAL EQUIPMENT:</strong></td>
</tr>
<tr>
<td>• Operating modular diagnostic otorhinolaryngoscope microscope MICROM-LOR1;</td>
</tr>
<tr>
<td><strong>DENTAL EQUIPMENT:</strong></td>
</tr>
<tr>
<td>• Operating modular dental microscope MICROM-61.</td>
</tr>
</tbody>
</table>

Limited Liability Company “Research-and-Production Company “AZIMUT”

**SPECIALIZATION IN PRODUCTION**

Development and production of endoscopic, endovideosurgical equipment, ENT doctor’s offices and endoscopes.

<table>
<thead>
<tr>
<th>LIST OF MANUFACTURED PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENDOSCOPIC EQUIPMENT:</strong></td>
</tr>
<tr>
<td>• Laparoscopes;</td>
</tr>
<tr>
<td>• Arthroscopes;</td>
</tr>
<tr>
<td>• Rhinoscopes;</td>
</tr>
<tr>
<td>• Otoscopes;</td>
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<tr>
<td>• Hysteroscopes;</td>
</tr>
<tr>
<td>• Contact hysteroscopes;</td>
</tr>
<tr>
<td>• Hysteroscopic resectoscopes;</td>
</tr>
<tr>
<td>• Cysto-urethroscopes;</td>
</tr>
<tr>
<td>• Cystouresectoscope;</td>
</tr>
<tr>
<td>• Adapters with variable focal length;</td>
</tr>
<tr>
<td>• Endoscopy video camera with color image &quot;Endoscam-450&quot;;</td>
</tr>
<tr>
<td>• Endoscopy video camera with color image &quot;Endoscam-450&quot; with USB storage;</td>
</tr>
<tr>
<td>• Endoscopy video complex with color image &quot;Endoscam-450&quot; with LED-light;</td>
</tr>
<tr>
<td>• Endoscopy video complex with color image &quot;Endoscam-450&quot; with LED-light and USB storage;</td>
</tr>
<tr>
<td>• Medical halogen illuminator for rigid endoscopes OJE-08;</td>
</tr>
<tr>
<td>• Medical metal halide illuminator for flexible endoscopes OGE-01;</td>
</tr>
<tr>
<td>• Medical halogen illuminator for flexible endoscopes OGE-05;</td>
</tr>
<tr>
<td>• Illuminator for rigid endoscopes LED;</td>
</tr>
<tr>
<td>• Aspirator-irrigator;</td>
</tr>
<tr>
<td>• Electronic insufflation;</td>
</tr>
<tr>
<td>• Otorhinolaryngologist’s workplace for diagnostic and treatment procedures RM LOR “Azimut”.</td>
</tr>
</tbody>
</table>
Limited Liability Company “EFA Medica”

+7 (812) 708-92-99
info@efamedica.ru
www.efamedica.ru

SPECIALIZATION IN PRODUCTION
Development and production of endovideosurgery equipment.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT FOR HIGH-FREQUENCY ELECTROSURGERY AND ENDOSURGERY:
• Electrosurgical high-frequency devices;
• Apparatus for argon-clotting coagulation;
• Apparatus for insufflations;
• Apparatus for irrigation and aspiration, endoirrigation;
• Endoscopic illuminators;
• Video systems (video camera and video monitors);
• Hardware chassis, endosurgical complex.

DIRECTIONS OF RESEARCH
EFA Medica specializes in the area of development and production of devices for minimally invasive surgery, and serially produces more than 20 types of medical equipment. Produced equipment is based on the principles of intellectual management, which algorithms are created on the basis of clinical researches, conducted jointly with medical institutions. The company is equipped with modern production equipment, has its own design office and customer service.

A separate line of the activity of EFA Medica is contract-based research. The company performed development work ordered by the Main Military Medical Directorate of the Ministry of Defense of Russia – endosurgical mobile complex “KST-01-EH”. The company actively cooperates with the Institute of Medical and Biological Problems of the Russian Academy of Sciences for the State Corporation “ROSKOSMOS”. The result of collaboration was a management system of the thermo-pulse installation, on the base on joint research there were developed flight patterns, that have been already operating for more than a year on the board of the International Space Station.

“Neo” Co. Ltd

+7 (812) 335-44-07
info@valenta.spb.ru
www.valenta.spb.ru

SPECIALIZATION IN PRODUCTION
Development and production of medical equipment for functional diagnostics.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT FOR FUNCTIONAL DIAGNOSTICS:
• Hardware-software complex “Valenta” for functional diagnostics research;
• Complex of remote ECG transmission based on telecardiographs;
• Complex of 24-hour monitoring of ECG “Valenta”;  
• Mobile diagnostic complex;
• Electrocardiographs and ECG transmission;
• Portable ECGC-01;
• Computer electrocardiograph ECGC-02;
• Rheographic sensor;
• Computer spirometer.

DIRECTIONS OF RESEARCH
“Neo” Co. Ltd conducts research in the field of developing software and hardware systems for recording various biological signals (electrocardiograms, spiromgrams, etc.) and their processing, both with the help of miniature microprocessor systems, and on personal computers.

The solutions developed by the company provide almost all diagnostic studies in the field of cardiology and functional diagnostics.
Limited Liability Company “Research-and-Production Association ”VOLO”

+7 (812) 323-75-85  
mail@volo.ru  
www.volo.ru

SPECIALIZATION IN PRODUCTION
Development and production of laser and optoelectronic systems for various purposes, including medicine.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT FOR LASER SURGERY AND THERMOTHERAPY:
• Laser semiconductor surgical apparatus АLPH-01 “DIOLAN”;
• Light guide tools;

EQUIPMENT FOR LOW-INTENSIVE LASER THERAPY:
• Laser semiconductor therapeutic apparatus ALP-01 “LATON”;
• Apparatus “Laton-Angiospasm”;
• Light guide tools;

LASER EQUIPMENT FOR STIMULATION OF VISION:
• Apparatus ALP-02 “VISATOR”.

Closed Joint-Stock Company “Plasmafilter”

+7 (812) 458-81-63  
plasma02@mail.wplus.net  
www.plasmafilter.spb.ru

SPECIALIZATION IN PRODUCTION
Development and production of equipment for plasmapheresis, as well as high-tech products for hernioplasty.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT PLASMAPHERESIS:
• Apparatus for plasmapheresis “Gemma”;
• “SM-PF-01” system to the “Gemma” apparatus;
• Devices for membrane plasmapheresis UAM-01 “PF SPb”, UBM-01 “PF SPb”,
• Membrane plasma filters PFM-500, PFM-800;

PRODUCTS FOR SURGERY:
• Mesh prostheses for hernioplasty with antimicrobial properties in the set with antimicrobial suture material.

INFORMATION ON PRODUCT SEGMENT OF THE CLUSTER OF MEDICAL AND PHARMACEUTICAL INDUSTRIES, AND RADIATION TECHNOLOGIES

RPA “VOLO” carries out scientific research and development in the field of creating new medical equipment. Has been developed a unified series of disposable fiber-optic instruments for laser endosurgical operations. The instrument is adapted for use as a part of laser medical devices for domestic and foreign production. A line of medical products for fluorescent diagnostics and laser treatment of diseases of the oncological profile is being developed. Samples of apparatuses for diagnostics and treatment of brain tumors and oncological diseases of urogenital area were created. Medical and biological research concerning the development of treatment technologies is being conducted in leading medical centers of St. Petersburg.
Limited Liability Company “ALCOM Medica”

+7 (812) 368-21-67
info@alcommedica.ru
www.alcommedica.ru

SPECIALIZATION IN PRODUCTION
Development and manufacture of laser equipment for ophthalmology, surgery and therapy.

LIST OF MANUFACTURED PRODUCTS

LASER APPARATUS FOR OPHTHALMOLOGY:
- Multi-wave laser ALMS-01 (532 и 810 nm) with a scanning pattern system;
- Laser diode device ALOD-01 (532, 662 и 810 nm);
- Laser ophthalmoperforator ALOF mh-01 “Optimum”;
- PFK-01 and PFK-02 attachments for transpupillary photoacoagulation;
- Handheld light-guiding tool for ophthalmology;
- Eye safety system for a doctor;
- Light source for endo-illuminators;

LASER APPARATUS FOR SURGERY:
- Surgical laser ALOD-01 — laser apparatus with a “touch screen”;
- Surgical laser apparatus for treating varicosis ALOD-01;
- Light guide tool for surgery;
- Doctor’s eye safety system for colposcopes;

APPARATUS FOR LOW-INTENSITY LASER- AND PHOTOTHERAPY:
- Quantum therapy complex “Shuttle-COMBI IK+”;
- Laser combined therapy apparatus “Shuttle-COMBI”;
- Irradiators for photochromotherapy series “RUBIN”;
- Laser and LED emitters for therapy to the “Shuttle-COMBI” series apparatus;
- Nozzles for therapy;

LASER EQUIPMENT FOR PHOTODYNAMIC THERAPY:
- ALOD-01 (662 nm) apparatus for photodynamic therapy;
- Light guide tools;
- Indicator of power density of laser radiation PDI-01;
- Integrated indicator of power density of laser radiation IIM 1P;

OTHER EQUIPMENT:
- Electrosurgical high-frequency apparatus “EHVCH-ALCOM Medica”;
- Wood’s lamp;
- Infrared radiation imager;
- Radiation power indicator;
- Smoke evacuator “EVDM-ALCOM-medica”.

DIRECTIONS OF RESEARCH
ALCOM Medica carries out the development of electronics, the programming of microcontrollers, the design of medical equipment, performs industrial design, conducts research in the field of laser technology.

The company closely cooperates with I.P. Pavlov laser center of the Ministry of Health of Russia. Together they created a number of developments on the use of lasers in various fields of medicine, developed a series of methodological materials.

Limited Liability Company “Atcus”

+7 (812) 294-25-32
sales@atcsd.ru
www.atcus.ru

SPECIALIZATION IN PRODUCTION
Development and manufacture of medical laser devices for surgery and photodynamic therapy.

LIST OF MANUFACTURED PRODUCTS

LASER EQUIPMENT:
- Laser medical devices of the “Latus” series (810, 940, 980, 1 470 nm);
- Medical devices of the “Latus” series Mask and Headlamp;
- Two-wave laser medical device “Latus-5” for stomatology.

LASER APPARATUS FOR OPHTHALMOLOGY:
- Multi-wave laser ALMS-01 (532 и 810 nm) with a scanning pattern system;
- Laser diode device ALOD-01 (532, 662 и 810 nm);
- Laser ophthalmoperforator ALOF mh-01 “Optimum”;
- PFK-01 and PFK-02 attachments for transpupillary photoacoagulation;
- Handheld light-guiding tool for ophthalmology;
- Eye safety system for a doctor;
- Light source for endo-illuminators;

LASER EQUIPMENT FOR PHOTODYNAMIC THERAPY:
- ALOD-01 (662 nm) apparatus for photodynamic therapy;
- Light guide tools;
- Indicator of power density of laser radiation PDI-01;
- Integrated indicator of power density of laser radiation IIM 1P;

DIRECTIONS OF RESEARCH
Atcus conducts research related to the use of laser technologies in medicine, with the aim of expanding the functionality of using “Latus” laser devices.

The company closely cooperates with leading Russian scientific organizations: N.N. Petrov National Medical Research Oncology Center of the Ministry of Health of Russia, FSBI Institute of Physiology named after I.P. Pavlov of the RAS, O.K. Skobelnik State Scientific Center of Laser Medicine of the FMBA of Russia, A.F. Tsyba Medical Research Radiological Center, and others.

S. M. Kirov Military Medical Academy, North-Western State Medical University named after I. I. Mechnikov of the Ministry of Health of Russia, Russian A. L. Polenov Neurosurgical Institute of the Ministry of Health of Russia, S. M. Kirov Military Medical Academy.
Limited Liability Company
“Research-and-Production Association "Nephron"

+7 (812) 380-88-28
office@nephron.ru
www.nephron.ru

SPECIALIZATION IN PRODUCTION
Development and manufacture of medical products and equipment for hemodialysis.

LIST OF MANUFACTURED PRODUCTS

APPARATUS FOR HEMODIALYSIS:

- Apparatus for prolonged venous procedures:
  - LyndaTM;
  - FormulaTM;
  - FormulaTM for home dialysis;
  - FormulaTM 2000;
  - FormulaTM 2000 Plus;
- Aldocontent;
- Citrate;
- Subtitrat;
- Atitool;
- Isoleucine;
- LAL test;
- “Nephrocart”.

Limited Liability Company
“Research-and-Production Company “Aksioma”

+7 (812) 380-05-40
info@aksioma.com
www.aksioma.com

SPECIALIZATION IN PRODUCTION
Development and production of medical instruments and equipment for minimally invasive surgery.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT FOR ENDOVIDEOSURGERY:

- Endoscopic video cameras EVK-01-“AKSI” type 1, EVK-01-“AKSI” type 3, EVK-01-“AKSI” type 5, EVK-01-“AKSI” type 6;
- Medical display 19” DM-03, 24” DM-05, 32” DM-07;
- Endoscopic illuminator OECGM-“AKSI” type 2;
- Active LED light guides;
- Electronic insufflator IN-32-01-“AKSI” type 2;
- Electrosurgical apparatus EHVCH-300-01-“AKSI”;
- Aspirator-Irrigator AI-01-“AKSI” type 1;
- Fiber optic cables;
- Electromechanical rotary microdebrider MD-100-01-“AKSI” type 1;
- Optical tubes TOAR, TOCG;

EQUIPMENT FOR FLEXIBLE ENDOSCOPY:

- Endoscopic video cameras EVK-01-“AKSI” type 2, EVK-01-“AKSI” type 8;
- Medical display 19” DM-03, 24” DM-05;
- Endoscopic illuminator OECGM-“AKSI” type 11, OECGM——“AKSI” type 15;
- Electrosurgical apparatus EHVCH-300-01-“AKSI”;
- Aspirator-Irrigator AI-01-“AKSI” type 2;
- Devices for the transmission of color video images of the operating or surveyed field UPVGDS-01-“AKSI”/UPVKS-01-“AKSI”

2016 MANUFACTURE VOLUME

380.00 mln rub.

2016 MANUFACTURE VOLUME

210.00 mln rub.

INFORMATION ON PRODUCT SEGMENT OF THE CLUSTER OF MEDICAL AND PHARMACEUTICAL INDUSTRIES, AND RADIATION TECHNOLOGIES

- Subtitrat;
- Atitool;
- Isoleucine;
- LAL test;
- “Nephrocart”.

- Endoscopic video cameras EVK-01-“AKSI” type 2,
  EVK-01-“AKSI” type 8;
- Medical display 19” DM-03, 24” DM-05;
- Endoscopic illuminator OECGM-“AKSI” type 11,
  OECGM——“AKSI” type 15;
- Electrosurgical apparatus EHVCH-300-01-“AKSI”;
- Aspirator-Irrigator AI-01-“AKSI” type 2;
- Devices for the transmission of color video images of the operating or surveyed field UPVGDS-01-“AKSI”/UPVKS-01-“AKSI”
Joint-Stock Company "Micard-Lana"

+7 (812) 648-12-60
info@micard.ru
www.micard.ru

SPECIALIZATION IN PRODUCTION
Development and manufacture of electrocardiographs for professional and home use.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT FOR CARDIOLOGY:
• Portable electrocardiograph "Cardiometer-MT", Professional;
• Portable electrocardiograph "Cardiometer-MT", Professional, for ambulance crews;
• Portable electrocardiograph "Cardiometer-MT", for home use.

2016
MANUFACTURE VOLUME
13.74
mln rub.

DIRECTIONS OF RESEARCH
Mikard-Lana is engaged in the development, manufacture and sale of medical equipment for medical institutions and individual use, as well as the organization of networks of remote consultations.

The company conducts research in the field of creating and developing algorithms for ECG analysis, for which more than 50 copyright certificates and patents have been obtained, about 200 scientific works have been published, 10 theses for obtaining the scientific degree of candidate of technical or medical sciences.

Limited Liability Company "SP Minimax"

+7(812) 702-19-46
raziat_minimax@mail.ru
www.minimax.ru

SPECIALIZATION IN PRODUCTION
Development and production of medical equipment for Doppler sonography.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT FOR DOPPLER SONOGRAPHY:
• Minimax-Doppler-K (MM-D-K) model GK;
• Minimax-Doppler-K (MM-D-K) model NB.

2016
MANUFACTURE VOLUME
13.55
mln rub.
Limited Liability Company “Line-Optic”
+7 (812) 606-60-07
maslowskaya@yandex.ru
www.line-optic.ru

SPECIALIZATION IN PRODUCTION
Development, design and production of a new generation of medical and technical endoscopes with the use of visual and video channels.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT FOR ENDOVIDEOSURGERY:
- Laparoscope;
- Cystoscope;
- Endoscope with lift mechanism;
- Technical flexible Endoscope with prismatic nozzle;
- Technical rigid endoscope with rotating body and dioptric shift.

2016 MANUFACTURE VOLUME
15.10 mln rub.

DIRECTIONS OF RESEARCH
Line-Optic has a high scientific and technical potential, renders services in the field of development, technologies and production of optical instruments, their element base, and also the organization of such productions. The company is one of the few manufacturers of microoptics for endoscopy in Russia, develops and produces medical and technical endoscopes, including video. Owns precision machining and processes of applying vacuum optical coatings corresponding to the world level.

Limited Liability Company “Bianalitika” (GC “LUMEX”)
+7 (812) 493-48-81
lumex@lumex.ru
www.lumex.ru

SPECIALIZATION IN PRODUCTION
Development and manufacture of medical analytical equipment.

LIST OF MANUFACTURED PRODUCTS

MEDICAL ANALYTICAL EQUIPMENT:
- Biochemical analyzer “BIALAB-100”;
- Multiwave phototherapeutic irradiator “IVOLGA-OMS-01”;
- Semi-automatic programmable photometer-fluorimeter-chemiluminometer “FLUORAT®-02-ABLF-T”.

2016 MANUFACTURE VOLUME
2.13 mln rub.
Limited Liability Company “Metromed”

+7 (812) 234-04-15
info@metmed.ru
www.metmed.ru

SPECIALIZATION IN PRODUCTION
Development and production of metrological means for immunological and biochemical laboratories.

LIST OF MANUFACTURED PRODUCTS

FOR MEDICAL LABORATORIES:
- Means of control and verification of plate immunoenzymometric and biochemical analyzers;
- Calibration ray filter SFP-01.

DIRECTIONS OF RESEARCH
Metromed carries out the development of monitoring tools for medical analyzers. Together with “SA (Systems of Analysis)” LLC the company has developed a kit for quality control of the plate immunoenzymometric and biochemical analyzers, which is successfully used in organizations of Rosstandart, by developers of analyzers and services for the repair of medical equipment.

At present, Metromed develops measuring tools for calibration of medical photometric analyzers, as well as means of their control during operation.

Limited Liability Company “Research-and-Production enterprise ”IZUMRUD”

+7 (812) 466-66-29
aquae.ca@gmail.com
www.izumrud.com.ru

SPECIALIZATION IN PRODUCTION
Development and production of water treatment plants, water disinfection systems, disinfectant solutions.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT FOR CLEANING AND DISINFECTING:
- Water purifiers-activators “Izymrud”;
- Installations for electrochemical synthesis of activated washing, disinfecting and sterilizing solutions “AQUAEHA”;
- Installations for aerosol disinfection with “AQUAEHA” solution “Tuman”.

2016 MANUFACTURE VOLUME
7.38 mln rub.

2016 MANUFACTURE VOLUME
11.40 mln rub.
Limited Liability Company "SinCor"

+7 (812) 332-95-32
info@sinkor.ru
www.sinkor.ru

SPECIALIZATION IN PRODUCTION
Development and production of medical equipment for restorative medicine, neurology and psychiatry is based on the method of bioacoustic correction.

LIST OF MANUFACTURED PRODUCTS

NEUROTHERAPEUTIC EQUIPMENT:
- The device for converting the total electrical activity of the brain into a sound of the musical range for the bioacoustic normalization of a person’s psychophysiological state, computerized by “Synchro-S”.

Limited Liability Company “Medlaz-Neva”

+7 (812) 369-49-21
info@medlazneva.ru
www.medlazneva.ru

SPECIALIZATION IN PRODUCTION
Development and production of laser equipment and light-guide tools and nozzles of a wide range of applications.

LIST OF MANUFACTURED PRODUCTS

LASER APPARATUS FOR PHYSIOTHERAPY:
- Laser apparatus of the “SHUTTLE” series;
- "RUBIN” LED irradiators;
- Medical Complex “VEGA”;

LASER APPARATUS FOR SURGERY:
- Laser apparatus of the "ALOD-01” series (810, 960 and 1064 nm);

LASER APPARATUS FOR PHOTODYNAMIC THERAPY:
- Laser apparatus of the "ALOD-01” series (635 and 662 nm).

DIRECTIONS OF RESEARCH
Medlaz-Neva develops and implements laser equipment in medical practice, and also performs fundamental research in the field of laser technology.

Qualified methodological support of the company’s developments is ensured by the cooperation with the O.K. Skobelkin State Scientific Center of Laser Medicine of the FMBA of Russia, I.P. Pavlov St.Petersburg Laser Medical Centre of the Ministry of Health of Russia, S.M. Kirov Military Medical Academy, R.R.Vreden Russian Research Institute of Traumatology and Orthopedics of the Ministry of Health of Russia, D.O. Otto Scientific Research Institute of Obstetrics, Gynecology and Reproduction and other scientific organizations.
Limited Liability Company "Megatechnica"

+7 (812) 572-23-95
manager@megatechnica.ru
www.megatechnica-medical.ru

SPECIALIZATION IN PRODUCTION
Development and production of equipment for neutralization and disposal of medical waste of B and C classes, electronic indicators and control systems for sterilization processes.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT FOR MEDICAL WASTE DECONTAMINATION:
- Installation of hardware-based disinfection and destruction of medical waste "SAMot" apparatus;
- Electronic indicators and sterilization processes control systems;
- Equipment to reduce the volume of disinfected medical waste;
- Electronic thermal indicators for "cold chain" monitoring.

2016 MANUFACTURE VOLUME
18.00 mln rub.

DIRECTIONS OF RESEARCH
Megatechnica is engaged in the creation of effective and safe technologies in the field of handling medical waste, including implementing projects for the organization of sites for handling medical waste "on a turn-key basis".

The company is constantly improving solutions in the field of hospital sterilization, offering new modifications of equipment for the disposal of medical waste.

Limited Liability Company "Systemy Analiza"

+7 (812) 234-91-32
systan@systan.ru
www.systan.ru

SPECIALIZATION IN PRODUCTION
Development and production of analyzers and other technical means of immunobiotechnology.

LIST OF MANUFACTURED PRODUCTS

EQUIPMENT FOR MEDICAL LABORATORIES:
- Immunoenzymometric analyzers AIF-P;
- Toxicological analyzer "Granat-3"™;
- Microcentrifuge MCF-R;
- Vibration thermostat;
- Means of quality control of EIAs.

2016 MANUFACTURE VOLUME
6.13 mln rub.
Limited Liability Company “Alkor Bio”

SPECIALIZATION IN PRODUCTION
Development, production and implementation of reagent kits for laboratory diagnostics using ELISA and PCR methods.

LIST OF MANUFACTURED PRODUCTS

- Test systems for hormonal diagnostics;
- Test-systems for cancer diagnostics;
- Test systems for allergy diagnostics (test system and more than 700 allergens included);
- Test systems for diagnostics of dangerous infectious diseases (HIV, hepatitis B and C, ToRCH);
- Sets and software for prenatal screening of Down syndrome «Isida»;
- Lane of test systems for diagnostics of cystic fibrosis hereditary disease;
- Specific components for test systems (conjugates, antibodies, oligonucleotides, reagents for PCR).

Joint-Stock Company “Medtest-SPb”

SPECIALIZATION IN PRODUCTION
Production of consumables for sterilization (means of chemical, biological, physical control of sterilization processes, packing materials for sterilization).

LIST OF MANUFACTURED PRODUCTS

MEDICAL LABORATORIES EQUIPMENT:
- Chemical indicators of 1, 2, 4, 5, 6 classes for steam, air, plasma, ozone, ethylene oxide, radiation, formaldehyde sterilization;
- Biological indicators for steam, air, ethylene oxide, plasma, ozone, formaldehyde, radiation sterilization;
- Chemical indicators for steam, air, ethylene oxide, radiation and gas sterilization;
- Chemical indicators for monitoring UV germicidal control and absorbed dose of UV radiation in physiotherapy.

2016 MANUFACTURE VOLUME

Limited Liability Company “Alkor Bio”

MANUFACTURE VOLUME
672.00 mln rub.

Joint-Stock Company “Medtest-SPb”

MANUFACTURE VOLUME
156.00 mln rub.
Limited Liability Company "Labterminal"

+7 (812) 234-04-15
labterminal@systan.ru

**SPECIALIZATION IN PRODUCTION**
Development and production of peripheral measurement means for technical equipment of small medical diagnostic laboratories.

**LIST OF MANUFACTURED PRODUCTS**

**EQUIPMENT FOR MASS ELISA:**
- Terminal-photometer TFP-1.

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Joint-Stock Company "MELP"

+7 (812) 954-50-95
info@melp.ru
www.melp.ru

**SPECIALIZATION IN PRODUCTION**
Apparatus and technologies for ozone production and use.

**LIST OF MANUFACTURED PRODUCTS**

**OZONE MEDICAL EQUIPMENT:**
- Low-temperature gaseous ozone sterilizer CO-01;
- Ozone therapy apparatus AOT-01;
- Installations of water ozonation for water purification, water treatment, food industry;
- Ozonizers for air deodorization and disinfection;
- Air ionizers for ventilation systems.

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**2016 MANUFACTURE VOLUME**

**EQUIPMENT FOR MASS ELISA:** 8.4 mln rub.

**DIRECTIONS OF RESEARCH**
Labterminal is a Technopark ETU "LETI" resident. The company combines research and development with practical training of students in the organizing their work within the creative team on regular basis. The priorities of Labterminal are research, development and implementation of a peripheral measurement means for technical equipment of small medical diagnostic laboratories. Partners of the company are: Saint Petersburg Electrotechnical University "LETI", FSUE "BEMZ", Research Institute of Influenza (RII), Pavlov First St. Petersburg State Medical University, MSU M. V. Lomonosov and others.

**MELP** specializes in electrophysical devices development and production. The main activity of the company is connected with obtaining and application of ozone technologies. Currently, "MELP" CJSC is developing ozone sanitizer, intended for sanitizing and disinfection with ozonated water, which has disinfecting properties.

**2016 MANUFACTURE VOLUME**

**OZONE MEDICAL EQUIPMENT:** 1.14 mln rub.