

biografía

# The Master Key of the Ozone Therapy in Russia

# Dr. Sergei Petrovich Peretyagin

by

Roberto Quintero, ISCO3 Legal Advisor Adriana Schwartz, ISCO3 Secretary

#### Abstract

Dr. Sergei Petrovich Peretyagin may be considered the master key for the development of ozone therapy in Russia. He founded the Nizhny Novgorod Interregional Ozone Therapy Center; and the Russian Association of Ozone Therapy. The Russian Federal Service Control of Health and Social Development of the Ministry of Health authorized the use of medical ozone in obstetrics, gynecology and neonatology; on traumatology; and on dermatology and cosmetology. Russia has accepted ozone therapy as a normal practice in its medical centers and to be teaching at the university and post-graduate level. Author of more than 250 scientific publications, 18 inventions and 20 rationalization proposals. Dr. Peretyagin was awarded the Honorary Diploma of the Russian Minister of Health.

#### Resumen

El Dr. Sergei Petrovich Peretyagin puede ser considerado la llave maestra del desarrollo de la ozonoterapia en Rusia. Fundó el Centro Interregional de Ozonoterapia de Nizhny Novgorod; y la Asociación Rusa de Ozonoterapia. El Servicio Federal Ruso de Control de Salud y Desarrollo Social del Ministerio de Salud autorizó el uso del ozono médico en obstetricia, ginecología y neonatología; en traumatología; en dermatología y cosmetología. Rusia ha aceptado la ozonoterapia como una práctica normal en sus centros médicos y para ser enseñada en la universidad y el posgrado. Autor de más de 250 publicaciones científicas, 18 invenciones y 20 propuestas de racionalización. El Dr. Peretyagin recibió el Diploma de Honor del Ministro de Salud de Rusia.

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Contact for correspondence:: Roberto Quintero, Madrid, Spain. E-mail: info@isco3.org

## Introduction<sup>1</sup>

Dr. Sergei Petrovich Peretyagin may be considered the master key for the development of ozone therapy in Russia. The reason is found when the still young Sergei learned at the school the locksmith profession. Since then he realized the importance to get the necessary knowledge and skills to become a master key to open the scientific doors of medicine.

Thanks to the patient and sometimes difficult work done by Dr. Sergei Peretyagin he managed to open many doors in the reluctant health sector to use new medical technologies. He has been successful to the point that today Russia has accepted ozone therapy as a normal practice in its medical centers and to be teaching at the university and post-graduate level.



Dr. Sergei Petrovich Peretyagin

## **Firsts Years**

Dr. Sergei Peretyagin the master key of ozone therapy in Russia was born in Kirov nearly 1000 kilometers northeastern from Moscow on April 5, 1946 nearly one year after the ending of the Second World War called in Russia as the "Great Patriotic War".

His mother Ekaterina Egorovna was a history teacher, and director of the Nizhny Novgorod School No. 28. For her she learned the patience and constancy to teach other persons,

<sup>&</sup>lt;sup>1</sup> The author wishes to thank Dr. Sergey Petrovich Peretyagin to have accepted to answer in a very spontaneous and sincere way the different questions that he asked to him for the writing of this brief paper. Without his full contribution this document could not have been written.

Peretyagin's father, Petr Antonovich, was a professional worker of forest industry. Thanks to his commitment and dedication he became the director of the regional timber company.

Both mother and father had actively participated in the Great Patriotic War when the Nazi troops invaded the former Soviet Union in June 1941. They participated in the fall of Berlin that was the last battle before the formal end in Europe of the Second World War on May 5, 1945. His father at the moment was assistant chief of the health care of the Panzer army. Mother and father were injured and were awarded military orders and medals.

The childhood years of Sergei elapsed in Kirov living in an apartment of a large building. He remembers with great joy his games with other children, his studies at the school and doing his homework in the evenings at home. Because of the work of his parents he had to look after his younger sister and take care of the garden, domestic animals such as chickens, goats and pigs.

He has a loving memory of his parents. He reminisced how they lived in love, in harmony and how they supported, cared and helped each other.

## **Two Events of Great Repercussion**

Two major events are recalled by Sergei that took place when he was still at school. The first one was the Stalin's death in March 1953. Along with all the Kirov elementary schools children he went in a pilgrimage to visit the Stalin Mausoleum at the Moscow's Red Square. People from all over the country travelled at that time to say good bye to his leader. The other one was on April 12, 1961 when the Vostok 3KA-3 (Vostok 1) spacecraft with Yuri Gagarin aboard was launched from Baikonur Cosmodrome. He was the first human being to travel into space, and the first to orbit the earth. He received the title of national hero of the Soviet Union and became a worldwide celebrity.

Newspapers around the globe published his biography and details of his flight. Moscow and other cities in the former Soviet Union held mass demonstrations, the scale of which was second only to World War II Victory Parades.

## **Decision to Study Medicine**

Very early at school Sergei started to dream to become one day doctor. He was inspired by the unfilled possibility of his father who could not study medicine, although during the Great Patriotic War he had been assistant chief of the health care of the Panzer army.

In 1964 Sergei starts fulfilling his dream: He was already a student at the Pediatric Faculty of the Gorky (today Nizhny Novgorod), Medical Institute. S. M. Kirov. It were years of study with a bright and rich opportunity for learning the basics of medicine. In addition to intensive study, he was an active volleyball player and traveled around the country to participate in universities sport competitions, along with students' science groups in anatomy, pediatric and experimental surgery.

Nizhny Novgorod, 400 km east of Moscow, is the fourth Russian city for inhabitants after Moscow, Saint Petersburg and Novosibirsk.

#### **Converted into a Physician**

He got his medical university degree in 1970 and obtained a place at the Nizhny Novgorod Scientific Research Institute of Traumatology and Orthopedics as a doctor- resident in the Russian Burn Center. Deputy Director for Science Professor Nikolay I. Atyasov became the mentor, leader and teacher of Dr. Peretyagin. This period included two years of intensive work, improvement in science and mastering in the rare a difficult profession of combustiologist.

After completing his military service in the Armed Forces (1972 – 1974) he worked for two years as an assistant professor of the Anesthesiology Course at the General Surgery Department of the N.P. Ogarev Mordovian State University in Saransk 630 kilometers east of Moscow. At the same time Sergei was working in his thesis which defended in 1976 on the substantiation of the method of intraosseous infusion in the resuscitation practice.

#### **Research objective: Medical Ozone**

Once he obtained his title of Doctor of Medical Science he got entry in 1977 at the Nizhny Novgorod State Medical Academy, where he has occupied different positions: senior researcher, head of department, and eventually head of the Central Scientific Research Laboratory. During these years he was fascinated by the innovative idea of using ozone for medical purposes. He focused his knowledge and skills and after working daily long hours proposed to the research laboratory a new and innovative line of investigation: the development of technologies for the use of ozone in medicine; and the creation and organization of the service of ozone therapy in the practical health care. The Master Key of Ozone Therapy in Russia had arrived in the person of Dr. Sergei Peretyagin.

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#### Use and Dissemination of Ozone Therapy

After starting from scratch, he proved with experimental research the technique and pioneered the practical implementation of methods of ozone therapy in health care. For the practical implementation of his ideas, he received the support of two medical self-supporting cooperatives: Comfi and Vagan. Based in his research he defended his doctoral thesis on ozone therapy.

Then under his direction it was founded the Nizhny Novgorod Interregional Ozone Therapy Center. It received important government economic support for the creation of modern ozone instruments. The first one born at the center was an ozonation equipment that was used in different Nizhny Novgorod research institutes.

With this concrete development, the scientists of the Nizhny Novgorod Medical Academy were able to make a truly revolutionary breakthrough for the use of medical ozone in neurology, obstetrics and gynecology, dermatology, cardiac surgery, anesthesiology and Traumatology. In parallel the ozone scientific school was having an important development.

#### Support Received

Today is recognized the key contributions to the development of ozone therapy by Dr. Sergei, along with the following colleagues of the Nizhny Novgorod State Medical Academy professor G.A. Boyarinov, head of the Department of Anesthesiology and Critical Care Medicine; and professor C.N. Kontorschikova, head of the Diagnostics Laboratory Department. They initiated their participation in different international forums and congresses on ozone therapy in Austria, Cuba, France, Germany, Great Britain, Japan, USA and Spain.

#### **Russian Association of Ozone Therapy**

The important development that had taken the ozone therapy in Russia and the increasing number of health professionals who were using it led Dr. S.P. Peretyagin to propose and found in Nizhny Novgorod the Russian Association of Ozone Therapy. The main objective of the association is to assist in the development and distribution of technologies of ozone therapy in health care and in provide adequate education and training on ozone therapy to health professionals.

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No by coincidence Nizhny Novgorod currently is the alma mater of the Russian ozone therapy and Dr. Sergei is its master key. In confirmation of this, the ten all-Russian scientific-practical "Ozone in Biology and Medicine" conferences with international participation that have been organized by the Russian Association of Ozone Therapy in this important Volga River port from 1992 to 2016.

#### **Postgraduate Training of Doctors**

At the initiative of Sergei Petrovich the Department of Ozone Therapy was established at the Nizhny Novgorod Medical Academy. Under its umbrella and under directed by Dr. Sergei the "Fundamentals of Ozone Therapy" specialization program addressed to physicians was developed. Now this specialization program is implemented for postgraduate training of doctors in Russia (Nizhny Novgorod and Moscow), Ukraine and Poland. So the specialization program disseminates the technologies and advances of the ozone therapy in Ukraine, the Baltic States, Kazakhstan, and Uzbekistan as well as in other countries outside the former Soviet Union.

#### **Ozone therapy in Russian Hospitals**

In his role of key master for the development of ozone therapy and in his capacity of Deputy Chief Physician of the Regional Medical Diagnostic Center for Scientific Work (1994-1997) he expanded the practice of the therapy in all the Nizhny Novgorod region. Health center and clinics with ozone therapy treatments were opened. For example, in the Kiseliha Wars Invalids Hospital, in the Regional Medical Diagnostic Center, in the N.A. Semashko Regional Hospital and at the Nizhny Novgorod Research Institute of Traumatology and Orthopedics.

In addition to the above mentioned achievements at the regional level, Dr. Sergei obtained that the Russian Ministry of Health and Social Development adopted the methods of ozone therapy and registering it in the catalogue of new medical technologies. Even more important for Dr. Sergei was that the methods of ozone therapy were recognized by health professionals and patients as an effective therapeutic strategy.

From 1997 to 2010 Dr. Peretyagin was the head of the Russian Burn Center and Senior Researcher at the "Nizhny Novgorod Scientific Research Institute of Traumatology and Orthopedics". His specific area of scientific interest was the development of a rehabilitation system to be used all along the traumatic disease recovery of patients using ozone therapy technology.

During the period of three years (1997-2010) over 15,000 patients with thermal trauma and its consequences were treated at the Russian Burn Center; over 18,000 surgical procedures were performed. They were receiving high-quality, and skilled medical care.

## Legal Recognition of Ozone Therapy in Russia

Along with researching, teaching, expanding ozone therapy and treating patients, Dr. Peretyagin set up as a priority objective to provide at the therapy a legal status within the country. Eventually Russia became the second country in the world, after Greece, to adopt legal decisions on ozone therapy. The Russian Federal Service Control of Health and Social Development of the Ministry of Health authorized the use of medical ozone in obstetrics, gynecology and neonatology; on traumatology; and on dermatology and cosmetology. This federal service established that ozone "can reduce the drug load by 30%, to reduce the periods of intra-hospital stay of patients by 2-3 days and the frequency of septic complications twice as much."<sup>2</sup>

Currently since 2010 Sergei Petrovich Peretyagin is the Experimental Medicine Director of the Volga Federal Medical Research Center under the umbrella of the Ministry of Health.

## Low Doses of Ozone

Dr. Peretyagin qualifies as the most important achievement in his long research career to have established the fact that the systemic effects of ozone on the physiological properties of the human body, through reactive oxygen species, are activated with low dose ranges and ozone concentrations.

For this great leap that allowed to know one of the main features of the of medical ozone, Dr. Sergei Peretyagin and professor C.N. Kontorschikova were awarded the discovery № 306 in 2006 by the International Association of Authors of Inventions and Discoveries. Since then most of the scientific research on medical ozone has agreed on using ozone low doses and concentrations. The Madrid Declaration on Ozone Therapy states that "Ozone therapeutic indications are based on the knowledge that low physiological doses of ozone may play important roles with the cell."<sup>3</sup>

<sup>&</sup>lt;sup>2</sup> For details see: Roberto Quintero and Adriana Schwartz, "Ozone Therapy and Legislation – Analysis for its Regularization". ISCO3, 2nd updated and extended edition May 20, 2015.

http://isco3.org/wp-content/uploads/2016/01/Update\_May\_2015\_for\_ISCO3-1.pdf

<sup>&</sup>lt;sup>3</sup> ISCO3, 2nd. 2015, p. 11. http://aepromo.org/en/madrid-declaration-on-ozone-therapy-2nd-edition/

#### A Lifetime to Improve the Health of the Persons

The key master for the legal recognition by the Russian health authorities of ozone therapy and its widely use in the largest country in the world by territory has been Dr. Sergei Petrovich Peretyagin who has a formidable and impressive curriculum vitae. He is doctor of medical sciences, professor, Director of the Russian scientific journal "Bioradicals and Antioxidants". Author of more than 250 scientific publications, 18 inventions and 20 rationalization proposals. Dr. Peretyagin was awarded the Honorary Diploma of the Russian Minister of Health. Member of the International Academy of Authors of Scientific Discoveries and Inventions. Member of the Specialized Dissertation Council at N.I. Lobachevsky Nizhny Novgorod State University. Founder and president of the Russian Association of Ozone Therapy, chairman of its Scientific Technical Council, and he represents the Russian Ozone Association before IMEOF (International Medical Ozone Federation). He is founder and member of ISCO3 (International Scientific Committee of Ozone Therapy).

### The Loves of his Life

Nizhny Novgorod city has played a significant role in his life, for both professional and personal and family levels. In this port city of the Volga River he got his first professional position after getting his medical university degree in 1970 at the Nizhny Novgorod Scientific Research Institute of Traumatology and Orthopedics as a doctor- resident in the Russian Burn Center.

Also at the beginning of the 70s he discovered the love of his life that has tirelessly grown for more than 47 years. For his own words he says "the most beautiful and memorable moment in my live was when I met for the first time Dr. Tamara Vasilievna, neurologist who was working at the War Veterans Hospital." Since then she has been his love and support. The footsteps of Sergei and Tamara were followed by their eldest daughter Natalia, who is a gynecologist and ozone therapist. The youngest daughter Mary, although a lawyer from Nizhny Novgorod State University, is united to the health sector as currently she has a position at the Health Department of the university. The whole family is united around the grandson Nikita son of Mary. For Sergei the family is the center of his life and in his wife, his two daughters and grandson is where he found the strength to keep his professional career well alive: researching, teaching, treating patients, disseminating the benefits of ozone, leading the Russian association and actively participating internationally with IMEOF and ISCO3.

#### **His Philosophy**

He deeply believes that the main thing in person's life is to be honest and to be a competent and skilled professional in his work. His life's motto is: "Do not be satisfied, to strive, to seek..."