ELIAVA PHAGE THERAPY CENTER

We want to welcome you to the Eliava Phage Therapy Center and thank you for giving us the opportunity to be a part of your journey to better health. It is our goal to provide you with the highest quality care possible during your remote treatment. We have three missions – patient care, medical education, and research. We take a team approach to medicine, with you, the patient being the most important member of the team. No matter how major or minor your needs may be, the needs of our patients and their families are always our first priority. It is our job to listen and address your concerns. Our highly skilled and compassionate team is fully committed to your health needs and expectations.

Thank you again for choosing Eliava Phage Therapy Center. We are honored to serve you.
Sincerely,

DAVIT STURUA
Director of Eliava Phage Therapy Center

ELIAVA
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About the Eliava Phage Therapy Center

The Eliava Institute was established in 1923 by a Georgian microbiologist George Eliava and French Canadian scientist Félix d'Herelle. Friendship and scientific interest joined these two people, and they committed to establish a new Institute that they hoped would become the World Center of Bacteriophage research. During the period of the former Soviet Union, one of the largest bacterial and bacteriophage collections had been formed at the Eliava Institute. A number of effective bacteriophage preparations were elaborated in its scientific laboratories and manufactured commercially by production units within the Institute. The products of what today is called the Eliava Institute of Bacteriophage, Microbiology, and Virology (IBMV) have been used for prophylaxis and the treatment of infectious diseases throughout the entire Former Soviet Union, in its public health network and by the military forces. The Institute survived a variety of serious challenges following the 1991 break-up of the USSR, but has maintained its focus on phage research and application.

The Eliava Phage Therapy Center (EPTC) is an affiliate of the Eliava IBMV, and we are one of the few such centers in the world dedicated to phage therapy. The Eliava Phage Therapy Center has specialists in the fields of Internal Medicine, Pediatrics, Urology, Gynecology, Dermatology, ENT and offers outpatient surgical and non-surgical consultations where treatment strategies emphasize the use of bacteriophage as the cornerstone of complex medical services addressing bacterial infections.

What are Bacteriophages?

The word phage comes from the Greek 'phagos', meaning to eat. When combined with the root of the word bacteria, it forms "bacteriophage" describing a class of viruses that target and destroy different bacterial species. Bacteriophages occur naturally and their only known targets are the specific pathogenic bacterial strains upon which they prey. When isolated and directed at a target bacterial infection, bacteriophages form an effective tool to destroy specific bacteria.

Bacteriophages are not useful in addressing infections caused by viruses, molds, fungi, parasites, or other non-bacterial causes.

Antibiotic Resistant Infections

Following their discovery during the 1940s, antibiotics supplanted bacteriophage therapy in the health community's war on bacterial infections. However, a growing number of bacteria have become increasingly resistant to antibiotics, creating one of the great global threats to health. Today, patients visit the Eliava Phage Therapy Center from around the world to combat their antibiotic resistant bacterial infections with the Eliava's unique therapeutic bacteriophages. Phage preparations for prophylactic and therapeutic use are prepared with a selection of bacteriophages that target a wide spectrum of specific disease-causing bacteria. The selection of which phage or cocktail of phages to use on a patient is decided after performing bacteriological analysis on the patient's clinical samples.

Phage Therapy

Hence, bacteriophage therapy is the use of "good" viruses (bacterial viruses) to treat antibiotic resistant or chronic bacterial infections. The bacteriophage, or bacterial virus acts directly and exclusively on the target bacteria to destroy it through a process called "lysis." A specific bacteriophage seeks out host bacteria to which it is active, attaching itself to the exterior of the bacterial cell wall, and injecting its DNA into the bacterium. The phage's DNA then highjacks the cell's reproduction mechanism and reprograms it to produce bacteriophage particles. During this active infection process and after the phage has sufficiently multiplied and assembled phage progeny within the cell, enzymes are released by the phages which "lyse" the outer wall of the bacteria, killing the bacteria and releasing new bacteriophage into the environment to find and attack other bacteria of that type. Since phages multiply exponentially, a bacterial infection can be decimated in a very short amount of time.

Phage therapy is a viable alternative treatment for bacterial infection in cases where an infection is chronic or where antibiotics have failed to work. It can be a last resort tool for antibiotic resistant infections. In particular, bacteria like MRSA, ESBL and CRE and VRE are superbugs that have become the scary reality of today's world.

Phage can target multiple antibiotic resistant infections and also can prove advantageous in treating infections which cannot be effectively treated with antibiotics due to poor blood circulation or bacterial biofilms because of their ability to travel within wounds and in the body. Phages also are a helpful solution for the treatment of infections in people with allergies to antibiotics, and – in intestinal infections - help protect the bacterial ecology in the gut (microbiome) due to the phages' specificity. Broad spectral antibiotics, in contrast, destroy many good bacteria in the digestive tract.

As phage is a naturally occurring organism, it has the ability to adapt and modify to changing antibiotic resistance. Being bacteria's natural predator, therefore, there are great opportunities to discover "new" bacteriophage strains that are effective against those new bacteria.

The G. Eliava Institute of Bacteriophage, Microbiology and Virology in Tbilisi, Georgia is one of the world leaders in phage therapy research, and has an unprecedented collection of bacteriophages which can be utilized for developing custom phage preparations.

Our Vision

Our vision is to be a clinic that offers hope to patients in need. To work as a team of highly qualified professionals to carry out phage therapy using the best medical practices possible.

Our Philosophy

To combine the best treatment options to achieve good health for our patients. We believe in a holistic approach of the therapy and the combination of bacteriophages with other modalities to achieve maximal results. Our team of multidisciplinary specialists are involved in the care of each patient. Our patients are our priority

DISTANCE TREATMENT PROCESS

Before taking the distance treatment package

The patients provide the history of their illness and lab reports, they get their medical documentation assessed by our medical team
Initial bacteriological analysis (**95 Euro per sample**)

After taking the distance treatment package

- Initial telemedicine meeting with the doctor
- Providing treatment courses with the most suitable phages or custom phages at an additional cost
- Commencing phage therapy at home and modifying the treatment plans as necessary under the doctor's observation. Additional telemedicine consultations or bacteriological analysis if needed.
- Evaluation and conclusion of the performed therapy

INCLUDED

Telemedicine consultations
Standard phages with shipment
Bacteriological analysis

NOT INCLUDED IN THE PACKAGE (AND IF NECESSARY)

Custom phage (if standard phages are resistant) – **1,500 Euro** per 20 boxes, per bacterial strain (must allow 8-12 weeks to prepare), repeat orders of custom phages cost **900 Euro** per 20 boxes per bacteria. Custom phage orders are to be paid in advance

In case of shipping to specific zones, the shipping price of 200 euros will be added.

Supplemental phage

Within a year, if a repeat course is needed it will cost **600 euros** for 24 boxes of standard phage (including the shipment)

The cost of the Distance treatment package is 2100 Euro

info@eptc.ge *www.eptc.ge*