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Dr. Vladimir KHAVINSON

Epitalin (Ala-Glu-Asp-Gly) Tetrapeptide Therapy

https://www.youtube.com/watch?v=ff4_udTVivg

https://youtu.be/ff4_udTVivg

Introducing the Peptide Revolution

Dr. Vladimir Khavinson



<https://nootropix.com/epitalon-fountain-of-youth/>

Epitalon: The Fountain of Youth
by Dirk Wright

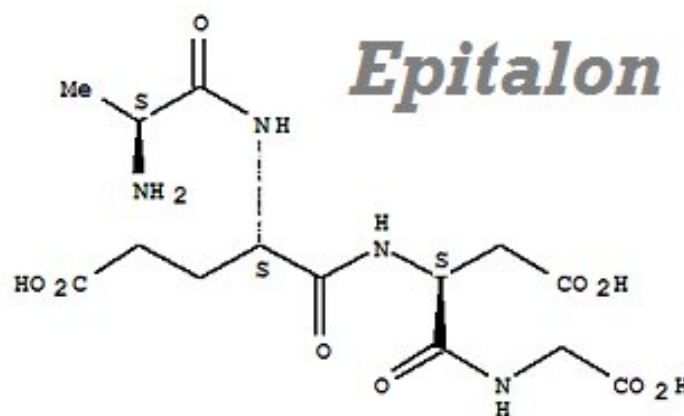
...Dr. Khavinson found that introducing epithalamin into mammals resulted in a reversal of age related diseases, and a reversal of the signs of aging. He was able to take geriatric female mice, who were no longer fertile, give them epithalamin, and after about two weeks of treatment, the mice became fertile again, got pregnant and had pups.[4] He showed that Epitalon induces telomerase activity in human somatic cells, proving that telomeres were lengthened by the peptide.[5] The synthetic version of epithalamin was patented by Dr. Khavinson and called “Epitalon” (also sometimes called epithalon since the original word is in Russian). It was approved for general use in the Soviet Union in 1990 and has been used in gerontology there ever since. No adverse side effects have ever been reported, according to Dr. Khavinson.

Since Epitalon is patented and trademarked, no drug company will research it. Since drug companies pay for almost all of the research on new medicines, no human clinical trials have been done in the West on it. Almost all of the research has been done by Dr. Khavinson and his associates. The results of his research are startling: for example, the application of

Epithalamin diminished mortality in aged humans by 1.8 times over a 6 year period of observation. [6] Here in the West, Epitalon is sold as a research chemical, not approved by the FDA for any purpose, but unregulated for research purposes. Anyone who uses it is considered a “researcher,” in other words.

Epitalon is a small peptide of 4 amino acids: **Ala-Glu-Asp-Gly** and can be administered via injection, as a nasal spray, or through the skin. The most effective route of administering it is via injection, either subcutaneously or intramuscularly. The peptide is typically given 2-3 times a day for 10-20 days in doses of 5-10 mg each. This cycle is repeated once every six to twelve months, but Epitalon can be given as often as desired. There are no negative side effects from the drug ever reported in over 100 studies on the peptide and from clinical use in Russia since 1990. Epitalon works mainly on the endocrine system but has effects on the entire body.[7]

When I first started taking it, my sense of smell returned, my digestion improved and I slept better. I have also noted positive changes in my vision and hearing. All of these functions are related to the autonomic nervous system and the endocrine system. Epitalon has been shown to restore normal melatonin production in aging monkeys, as well as restore the normal circadian rhythm for cortisol production, both of which result in better sleep at night.[8]



<https://nootropix.com/epitalon-mechanism-action/>

Epitalon, Part II: Mechanism of Action

...Epitalon is a synthetic peptide which were originally developed based upon the action of epithalamin, a hormone produced by the pineal gland. This hormone was found to stimulate the production of telomerase, an enzyme which plays a role in maintaining telomere length. Telomeres are non-coding terminal regions of DNA strands which preserve the integrity of the strand. With each revision, telomeres are shortened until the DNA strand cannot be further replicated. This process is highly implicated in the ageing process. Elongating telomeres theoretically extend the lifespan of a copy of DNA and allows it to replicate more times than usual. This was the theory behind the development of Epitalon®, a synthetic version of epithalamin which also stimulates the production of telomerase. Indeed, this theory has been confirmed in vitro in human cell cultures[1]...

Neutralisation of Harmful Free Radicals... Inhibition of Cancer Formation & Growth ...
Attenuation of Inflammation ... Endocrine Regulation

<https://www.ncbi.nlm.nih.gov/pubmed/575333>

Exp Pathol (Jena). 1979;17(9):539-45.

**Increase in lifespan of rats following polypeptide pineal extract treatment.
Dilman VM, Anisimov VN, Ostroumova MN, Khavinson VK, Morozov VG.**

Abstract

The 20 month-long treatment of female rats with daily doses of 0.1 or 0.5 mg of polypeptide pineal extract (PPE) per animal increased their lifespan by 10 and 25%, respectively, as compared with controls. At the age of 16--18 months, 38% of control rats exhibited persistent disturbances in estral function (constant estrus or repeated pseudogestations), whereas these disorders were observed in 7% of experimental animals only. After administration of PPE to 16--18 month-old female rats checked for sterility by a two-week mating, a second mating period resulted in gestation development in four out of 16 animals and deliveries, accordingly. While chronic treatment with PPE did not affect the rate of neoplasm incidence, the mean age of tumour detection in the control group was 697 days and in experimental groups it was 811 and 868 days, respectively. Certain aspects of the interrelationship of rate of ageing, lifespan and specific age pathology are discussed.

<http://www.ncbi.nlm.nih.gov/pubmed/12937682>

Bull Exp Biol Med. 2003 Jun;135(6):590-2.

Epithalon peptide induces telomerase activity and telomere elongation in human somatic cells.

Khavinson VKh1, Bondarev IE, Butyugov AA.

Abstract

Addition of Epithalon peptide in telomerase-negative human fetal fibroblast culture induced expression of the catalytical subunit, enzymatic activity of telomerase, and telomere elongation, which can be due to reactivation of telomerase gene in somatic cells and indicates the possib

[http://www.nel.edu/userfiles/articlesnew/NEL220401A03.pdf?
route=22_4/NEL220401A03_Khavinson_w.pdf](http://www.nel.edu/userfiles/articlesnew/NEL220401A03.pdf?route=22_4/NEL220401A03_Khavinson_w.pdf)

Synthetic tetrapeptide epitalon restores disturbed neuroendocrine regulation in senescent monkeys

Vladimir Khavinson, Nadezhda Goncharova & Boris Lapin

<https://www.ncbi.nlm.nih.gov/pubmed/14523363>

Neuro Endocrinol Lett. 2003 Jun-Aug;24(3-4):233-40.

Peptides of pineal gland and thymus prolong human life.

Khavinson VKh1, Morozov VG.

Abstract

OBJECTIVES AND DESIGN:

Researchers of the St. Petersburg Institute of Bioregulation and Gerontology of the North-Western Branch of the Russian Academy of Medical Sciences and the Institute of Gerontology of the Ukrainian Academy of Medical Sciences (Kiev) clinically assessed the geroprotective effects of thymic (Thymalin) and pineal (Epithalamin) peptide bioregulators in 266 elderly and older persons during 6-8 years. The bioregulators were applied for the first 2-3 years of observation.

RESULTS:

The obtained results convincingly showed the ability of the bioregulators to normalize the basic functions of the human organism, i.e. to improve the indices of cardiovascular, endocrine, immune and nervous systems, homeostasis and metabolism. Homeostasis restoration was accompanied by a 2.0-2.4-fold decrease in acute respiratory disease incidence, reduced incidence of the clinical manifestations of ischemic heart disease, hypertension disease, deforming osteoarthritis and osteoporosis as compared to the control. Such a significant improvement in the health state of the peptide-treated patients correlated with decreased mortality rate during observation: 2.0-2.1-fold in the Thymalin-treated group; 1.6-1.8-fold in the Epithalamin-treated group; 2.5-fold in the patients treated with Thymalin plus Epithalamin as compared to the control. A separate group of patients was treated with Thymalin in combination with Epithalamin annually for 6 years and their mortality rate decreased 4.1 times as compared to the control.

CONCLUSIONS:

The obtained data confirmed the high geroprotective efficacy of Thymalin and Epithalamin and the expediency of their application in medicine and social care for health maintenance and age-related pathology prevention in persons over 60 to prolong their active longevity.

https://worldwide.espacenet.com/advancedSearch?locale=en_EP

Patents

PEPTIDE EXHIBITING STRESS PROTECTIVE ACTION, PHARMACEUTICAL COMPOSITION BASED THEREON AND USE THEREOF

UA92387

The invention relates to a medicinal agent peptide glutamyl-aspartyl-glycine with general formula **H-Glu- Asp-Gly-OH** sequence 1 [SEQ ID NO:1] exhibiting stress protective action for prevention and treatment of functional or stress induced disorders, which occur as a result of extreme impacts.

PEPTIDE CAPABLE OF ENHANCING CAPILLARIES RESISTANCE, PHARMACEUTICAL COMPOSITION BASED THEREON AND METHOD OF USE THEREOF

UA91137

The invention is related to the medicinal means of correction of metabolic vascular syndrome and diseases, associated with disordered vascular wall permeability and capillaries fragility, and can be used as a means of enhancing capillaries resistance. There is proposed a peptide lysyl-glutamyl-asparagine acid of the general formula **H-Lys-Glu-Asp-OH** sequence 1 [SEQ ID NO:1], revealing biological activity and capable of enhancing capillaries resistance.

**PEPTIDE CAPABLE OF STIMULATING THE REGENERATION OF NEURONS,
PHARMACEUTICAL COMPOSITION BASED THEREON AND METHOD OF USE
THEREOF
UA91136**

The invention is related to the medicinal means of treatment of diseases, traumas, as well as consequences of traumas of the central nervous system, and can be also used as a means of stimulating neurons regeneration. There is proposed a peptide **glutamyl-aspartyl-arginine** with general formula H-Glu-Asp-Arg-OH sequence 1 [SEQ ID NO:1] capable of stimulating the regeneration of neurons.

**PEPTIDE REVEALING AN IMMUNOGEROPROTECTIVE EFFECT,
PHARMACEUTICAL COMPOSITION BASED THEREON AND METHOD OF USE
THEREOF
UA91135**

The invention is related to the medicinal means of prevention and correction of age-related disorders of cellular and humoral immunity and may be used as a medication revealing an immunogeroprotective effect.

**Peptide Substance Restoring Myocardium Function
US7662789**

The invention refers to the pharmaceutical means for the treatment of cardiovascular diseases and can be used as a substance restoring myocardium function in the course of treatment for different forms of this pathology. There is proposed a new tetrapeptide **alanyl-glutamyl-aspartyl-arginine** with general formula: Ala-Glu-Asp-Arg sequence 1 [SEQ ID NO:1], revealing biological activity, which is manifested in the restoration of the myocardium function. There is proposed a pharmacological substance containing an effective amount of tetrapeptide alanyl-glutamyl-aspartyl-arginine with general formula: Ala-Glu-Asp-Arg sequence 1 [SEQ ID NO:1] as an active peptide agent, revealing biological activity, which is manifested by the restoration of myocardium function. Being included in the medication, this substance contributes to the restoration of the myocardium function...

**Peptide Substance Restoring Respiratory Organs Function
US7625870**

The invention refers to the medicinal remedies for respiratory system diseases treatment and may be applied as a substance, capable of restoring respiratory organs functions and used for treatment of different forms of lung pathology. There is proposed a biologically active new tetrapeptide **alanyl-glutamyl-aspartyl-leucine** of the general formula Ala-Glu-Asp-Leu, capable of restoring respiratory organs function. There is proposed a pharmaceutical substance, containing as an active peptide agent an effective amount of tetrapeptide alanyl-glutamyl-aspartyl-leucine of the general formula Ala-Glu-Asp-Leu, which if used in the medical preparation contributes to the restoration of the respiratory organs function.

**Method of treating complications in immunodepressed states resulting from HIV
infection
US6368788**

Methods of treatment of subjects for decreasing cell mediated autoimmunity or humoral autoimmunity by administering an **R'-Glu-Trp-R''** pharmaceutical preparation useful in subjects having autoimmune diseases.

Tetrapetide revealing geroprotective effect, pharmacological substance on its basis, and

the method of its application

US5728680 // US6727227

Tetrapeptide L-alanyl-L-glutamyl-L-aspartyl-glycine (SEQ ID NO: 1) of the general formula L-Ala-L-Glu-L-Asp-Gly (SEQ ID NO: 1) is proposed as a biologically active compound with a geroprotective effect. The use of L-Ala-L-Glu-L-Asp-Gly (SEQ ID NO: 1) tetrapeptide in medicine is proposed for preparing a substance displaying a geroprotective effect. There is proposed a pharmacological substance, which contains as its active base an effective amount of tetrapeptide of the formula **L-alanyl-L-glutamyl-L-aspartyl-glycine (L-Ala-L-Glu-L-Asp-Gly)** (SEQ ID NO: 1) or its salts of the amino group (acetate, hydrochloride, oxalate) and of carboxyl groups (the salts of metals-Sodium, Potassium, Calcium, Lithium, Zinc, Magnesium, and also the salts of organic and inorganic cations-ammonium and triethylammonium). The substance is proposed for parenteral, intranasal, oral administration, and local application. With respect to the invention, the method of premature ageing prevention involves prophylactic and/or therapeutic administration to a patient of the pharmacological substance in doses of 0.01 to 100 mug/kg of the body weight at least once a day for a period necessary for the achievement of a therapeutic effect.

Pharmaceutical lysine-containing polypeptide compositions and methods of use thereof

US6066622 // US6346514

Pharmaceutical compositions and methods are provided for the therapy of immunodeficient, immunodepressed or hyperactive immune states and for the prevention and treatment of opportunistic infections in such states comprising administering to a subject a pharmaceutically acceptable composition comprising as an active ingredient peptides having the formula **R'-L-Glx-L-Glx-L-Lys-R''** and/or their pharmaceutically acceptable salts; wherein Glx is Gln or Glu.

Use of a dipeptide for stimulating repair processes

US6642201

L-Lys-L-Glu dipeptide is proposed for use in medicine for preparation of a drug capable of stimulating repair processes. According to the invention, the pharmaceutical peptide preparation capable of stimulating regeneration consists of pharmaceutically admissible carrier and effective quantity of dipeptide as an active part, which is a combination of, L-lysyl-L-glutamic acid or its salts. The pharmaceutical peptide preparation is proposed for parenteral, intranasal oral and local application. According to the invention, the method stimulating regeneration consists of prophylactic and/or treatment injections of the drug in the dose of 0.01-100 mukg per per 1 kg of weight, at least once a day during a period necessary for obtaining a therapeutic effect.

Pharmaceutical preparation for the therapy of immune deficiency conditions

US5767087

A pharmaceutical preparation for the therapy of immune deficiency conditions comprising an active principle-a peptide of the structure: **H-L-Glu-L-Trp-OH** and a pharmaceutically acceptable vehicle.

Immunomodulating peptides and methods of use

US6100380

This invention provides peptides of the formula **R'-Glx-Glx-Lys-R''** in which Glx is Glu or Gln. In particular, this invention provides the peptides **Thr-Ala-Glu-Glu-Lys** and **Thr-Pro-Glu-Glu-Lys**. This invention also provides pharmaceutical compositions comprising these peptides. The peptides of this invention are useful for immunomodulation.

Pharmaceutical preparation for the therapy of immune deficiency conditions
US5814611

A pharmaceutical preparation for the therapy of immune deficiency conditions comprising an active principle-a peptide of the structure: H-L-Glu-L-Trp-OH and a pharmaceutically acceptable vehicle.

Pharmaceutical dipeptide compositions and methods of use thereof: systemic toxicity
US5770576

Methods of treatment of subjects with systemic toxicity by administering an **R'-Glu-Trp-R''** pharmaceutical preparation.

Method for treatment of purulent inflammatory diseases
US5807830

This invention provides methods of treating purulent inflammatory diseases by administering **L-Glu-L-Trp** or a salt thereof.

Pharmaceutical dipeptide compositions and methods of use thereof:
immunodepressants
US5811399

Methods of treatment of subjects for decreasing cell mediated autoimmunity or humoral autoimmunity by administering an **R'-Glu-Trp-R''** pharmaceutical preparation useful in subjects having autoimmune diseases.

Pharmaceutical dipeptide compositions and methods of use thereof
US5789384 // US6139862

Methods are provided for the therapy of immunodeficient, immunodepressed or hyperactive immune states and for the treatment of opportunistic infections in such states comprising administering to a subject a pharmaceutically acceptable composition comprising as an active ingredient the dipeptide **L-Ile-L-Trp**, linear and cyclic monomers and polymers thereof, and/or pharmaceutically acceptable salts thereof.

Tetrapeptide stimulating the functional activity of hepatocytes, pharmacological substance on its basis and the method of its application
US7101854

The invention refers to the field of medicine and may be applied as a substance stimulating the functional activity of hepatocytes, restoring the synthesis of non-specific proteins, normalising metabolism activating the processes of proliferation and differentiation of the liver cells. There is proposed a new compound-tetrapeptide lysyl-glutamyl-aspartyl-alanine of the general formula **Lys-Glu-Asp-Ala** [SEQ ID NO:1]. There is proposed a pharmaceutical composition capable of stimulating the functional activity of hepatocytes and a pharmaceutical peptide substance containing as its active base a therapeutically effective quantity of tetrapeptide of the formula **Lys-Glu-Asp-Ala** [SEQ ID NO:1] or one of its salts intended for parenteral administration.; There is proposed a method of stimulating the functional activity of hepatocytes including therapeutic administration to a patient of the pharmaceutical peptide substance in doses 0.01-100 mug/kg of the body weight at least once a day during a period required for attaining a therapeutic effect.

Method of obtaining peptides with tissue-specific activity and pharmaceutical compositions on their basis
US2005004016

The invention refers to the field of chemistry and concerns the method of obtaining peptides with tissue-specific activity by targeted chemical synthesis. This invention can be employed in medicine to obtain peptide-based pharmaceuticals normalising the functions of various organs and functions. The method of obtaining peptides proposed in this patent claim embraces quantitative amino acid analysis of acetic extracts from tissues, selection on its basis of two amino acids (Glu and Asp) prevailing in the studied tissue, synthesis of the central link from these amino acids and attachment to its N- and C-ends of the amino acids prevailing among the remaining amino acids in the studied tissue. The peptides obtained by the claimed method possess a tissue-specific activity. There is proposed a pharmaceutical composition possessing a tissue-specific activity and containing as its active base one of the peptides obtained by the claimed method or its salts and a pharmaceutically admissible carrier.

Pharmaceutical preparation for the therapy of immune deficiency conditions
US6136788

This invention is directed to water soluble salts of L-Glu-L-Trp.

Tetrapeptide stimulating functional activity of neurons pharmacological agent based thereon and method of use thereof
US7189701

Tetrapeptide L-alanyl-L-glutamyl-L-asparagyl-L-proline of the general formula L-Ala-L-Glu-Asp-L-Pro is proposed as a biologically active compound stimulating the functional activity of neurones. The application of **L-Ala-L-Glu-L-Asp-L-Pro** tetrapeptide in medicine is proposed for the preparation of a drug stimulating the functional activity of neurones. There is proposed a pharmacological agent, which contains as its active base an effective amount of L-Ala-L-Glu-L-Asp-L-Pro tetrapeptide for its salts of the amino acid group (acetate, hydrochloride, oxalate) or its salts of carboxyl groups (the salts of sodium, potassium, calcium, lithium, zinc, magnesium, and also the salts of organic and inorganic cations-ammonium, triethylammonium). The agent is proposed for parenteral, intranasal and oral administration. In accordance with the invention, the method of stimulating the functional activity of neurones consists in preventive and/or therapeutic administration to the patient of the pharmacological agent in doses 0.01 to 100 mug/kg of the body weight at least one a day for a period necessary for attaining a therapeutic effect.

PHARMACEUTICAL LYSINE-CONTAINING POLYPEPTIDE COMPOSITIONS AND METHODS OF USE THEREOF
WO9409804

Pharmaceutical compositions and methods are provided for the therapy of immunodeficient, immunodepressed or hyperactive immune states and for the prevention and treatment of opportunistic infections in such states comprising administering to a subject a pharmaceutically acceptable composition comprising as an active ingredient peptides having the formula **R'-L-Glx-L-Glx-L-Lys-R''** and/or their pharmaceutically acceptable salts; wherein Glx is Gln or Glu.

PHARMACEUTICAL PENTAPEPTIDE COMPOSITIONS AND METHODS OF USE THEREOF
WO9312810

Methods are provided for the therapy of immunodeficient, immunodepressed or hyperactive immune states and for the prevention and treatment of opportunistic infections in such states comprising administering to a subject a pharmaceutically acceptable composition comprising

as an active ingredient the pentapeptide **L-Thr-L-Ala-L-Glx-L-Glx-L-Lys** and/or its pharmaceutically acceptable salts; wherein Glx is Gln or Glu.

**PHARMACEUTICAL DIPEPTIDE COMPOSITIONS AND METHODS OF USE
THEREOF
WO9308815**

Methods are provided for the therapy of immunodeficient, immunodepressed or hyperactive immune states and for the prevention and treatment of opportunistic infections in such states comprising administering to a subject a pharmaceutically acceptable composition comprising as an active ingredient the dipeptide **L-Glu-L-Trp**, the cyclic monomer thereof, polymers thereof of the formula $H_2N - [L-Glu-L-Trp]_n - CO_2H$; cyclic polymers thereof of formula (I) and their pharmaceutically acceptable salts thereof, wherein n and m are independently ≥ 2 .

**PHARMACEUTICAL DIPEPTIDE COMPOSITIONS AND METHODS OF USE
THEREOF
WO9217191**

Methods are provided for the therapy of immunodeficient, immunodepressed or hyperactive immune states and for the prevention and treatment of opportunistic infections in such states comprising administering to a subject a pharmaceutically acceptable composition comprising as an active ingredient the dipeptide **L-Glu-L-Trp** and/or its pharmaceutically acceptable salts.

**PEPTIDE COMPOUND, STIMULATING FUNCTION OF REPRODUCTIVE
SYSTEM, PHARMACEUTICAL COMPOSITION AND METHOD OF
APPLICATION
RU2324703**

FIELD: medicine; pharmacology. ^ SUBSTANCE: invention relates to application of dipeptide with the general formula **Nalpha-(gamma-L-glutamyl)-L-lysine**, for stimulation of function of the reproductive system by modulating the neuroendocrine status in aging and in hypogonadal condition. The pharmaceutical composition is invented, which contains **Nalpha-(gamma-L-glutamyl)-L-lysine**, and the method of stimulation of function of reproductive system. ^ EFFECT: described compound efficiently stimulates function of reproductive system.

**PHARMACEUTICAL WITH IMMUNOMODULATING ACTIVITY
WO9503067**

Pharmaceutical peptide preparations for inducing a heightened state of anti-microbial cellular or humoral immunity in a subject in need thereof consisting essentially of an **L-Lys-L-Glu** or **L-Glu-L-Trp** preparation and a pharmaceutically acceptable carrier.

**DIPEPTIDE INHIBITING ANGIOGENESIS IN OPHTHALMOPATHOLOGY
WO02062371**

The invention refers to medicine and concerns the ophthalmologic application of dipeptide **L-lysyl-L-glutamic acid (L-Lys-L-Glu)** as a preparation inhibiting neovascularisation in ocular diseases. There is proposed the application of **L-Lys-L-Glu** dipeptide or one of its salts as a substance capable of angiogenesis inhibition in ophthalmopathology. There is proposed a pharmaceutical preparation for parenteral administration including the claimed dipeptide or one of its salts in the amount, which is effective for the prevention of and/or treatment for ophthalmopathology requiring angiogenesis inhibition and which does not exceed 10 μg in 1 ml of a pharmaceutically admissible carrier. There is proposed a method of

ophthalmopathology treatment consisting in the preventive and/or therapeutic administration to a patient of an effective amount of the claimed pharmaceutical preparation for a period required to attain a therapeutic effect with regard to the character of the pathology development. The claimed pharmaceutical preparation is active when administered in the does range of 0.1-100 $\mu\text{g/kg}$ of the body weight.

TETRAPEPTIDE REGULATING PROSTATE FUNCTIONS AND ITS COMPOSITIONS AND METHODS

WO02066497

The invention refers to the field of medicine and can be applied for regulation prostate functions. Biologically active tetrapeptide of the general formula **Lys-Glu-Asp-Pro**, a pharmaceutical preparation capable of regulation the prostate functions and containing an effective amount of Lys-Glu-Asp-Pro tetrapeptide or one of its salts and a pharmaceutically admissible carrier intended for the parenteral administration. In addition a method of regulation the prostate functions, embraces administration of the pharmaceutical preparation in the dose of 0.01-100 $\mu\text{g/kg}$ of the body weight at least once a day during a period required for attaining a therapeutic effect.

TETRAPEPTIDE STIMULATING THE RETINAL FUNCTION AND THE METHOD OF ITS APPLICATION

WO02090380

The invention relates to medicine and concerns the ophthalmologic application of synthetic tetrapeptide **Ala-Glu-Asp-Gly** in the treatment for eye diseases and pathologic states by means of stimulating the retinal functions. The pharmaceutical peptide substance is proposed to treat for diseases and pathologic states accompanied by disturbed retinal functions and containing a pharmaceutically admissible carrier and a therapeutically effective quantity of tetrapeptide alanyl-glutamyl-asparagyl-glycine or one of its pharmaceutically admissible salts of the amino acid group (acetate, hydrochloride or oxalate) or of carboxyl groups (salts of metals - sodium, potassium, calcium, lithium, zinc, magnesium, as well as of organic and inorganic cations - ammonium and triethylammonium). There is claimed a method of treating for diseases and pathologic states embracing a preventive or therapeutic administration to a patient of the proposed pharmaceutical peptide substance parenterally: parabulbarly and/or intramuscularly in the doses of 0.1-10 $\mu\text{g/kg}$ of the body weight at least once a day for a period necessary to attain a therapeutic effect depending on the character and severity of the pathologic process.

AGENT PREVENTING DEGRANULATION OF MAST CELLS

RU2030914

AGENT FOR PARADONTITIS TREATMENT

RU2084231

METHOD OF PREPARING SUBSTANCE RECOVERING REPRODUCTIVE FUNCTION FROM OVARIES

RU2056853

AGENT FOR SKIN CARE

RU2008894

METHOD OF EVALUATION OF PEPTIDES BIOLOGICAL ACTIVITY

RU1807399

**METHOD OF TREATMENT OF PATIENTS HAVING ISCHURIA AFTER
SURGICAL OPERATIONS ON ORGANS OF ABDOMEN AND PELVIS
RU2007175**

**METHOD OF OBTAINING IMMUNOSTIMULATOR
SU1187824**

**METHOD OF PRODUCING POLYPEPTIDES
SU1227198**

**METHOD OF TREATMENT OF GASTRIC ULCER AND DUODENAL ULCER
SU1105202**

**METHOD OF PROTEIN FOOD ADDITION PREPARING
RU2075944**

**AGENT SHOWING IMMUNOMODULATING ACTIVITY
RU2080120**

**AGENT RECOVERING RETINA EYE FUNCTION
RU2073518**

**AGENT SHOWING TONIC ACTION ON THE VEIN, BLADDER AND PROSTATE
GLAND SMOOTH MUSCLE
RU2058780**

**Imunstimulejoss lidzeklis "timogen"
LV5407**

**PHARMACEUTICAL LYSINE-CONTAINING POLYPEPTIDE COMPOSITIONS
AND THE USE THEREOF
HK1013622**

**Brain derived peptide complex
GB2213485**

**Thymus-gland preparation and method for producing same
GB2177402**

**Thymus-gland preparation and method for producing same
US5070076**

**SUPPORTING THERAPY REMEDY AND METHOD FOR ITS PRODUCTION
FROM FROZEN SEA URCHIN SPAWN
RU2420212**

**AGENT FOR SUPPORTING THERAPY AND METHOD FOR MAKING AGENT OF
FROZEN-DRIED URCHIN HARDROE**

RU2414914

**METHOD OF OBTAINING MEDICATION, WHICH HAS TISSUE-SPECIFIC
ACTIVITY, AND MEDICATION, OBTAINED BY CLAIMED METHOD RU2415676**

**METHOD FOR PREPARING A MEDICAMENT FOR SUPPORTING THERAPY
EXHIBITING TISSUE-SPECIFIC ACTIVITY, AND A MEDICAMENT OBTAINED
THEREOF
EA010720**

**MEDICAMENT HAVING HETEROPROTECTIVE ACTIVITY AND METHOD FOR
PREPARING THEREOF
EA010737**

**MEDICAMENT NORMALISING REPRODUCTIVE MALE FUNCTION AND
METHOD FOR PREPARING THEREOF
EA010735**

**MEDICAMENT NORMALIZING FEMALE REPRODUCTIVE FUNCTION, AND
METHOD FOR PREPARING THEREOF
EA010736**

**MEDICAMENT NORMALIZING THYROID GLAND FUNCTIONS AND METHOD
FOR PREPARING THEREOF
EA010738**

**MEDICAMENT NORMALISING TONE OF URINARY BLADDER AND METHOD
FOR PREPARING THEREOF
EA010722**

**MEDICAMENT NORMALIZING KIDNEY FUNCTIONS AND METHOD FOR
PREPARING THEREOF
EA010723**

**MEDICAMENT NORMALIZING DRAIN FUNCTIONS AND METHOD FOR
PREPARING THEREOF
EA010739**

**HEPATOPROTECTIVE MEDICAMENT AND METHOD FOR PREPARING
THEREOF
EA010573**

**MEDICAMENT NORMALIZING BLOOD VESSEL FUNCTIONS, AND METHOD
FOR PREPARING THEREOF
EA010734**

**PREPARATION NORMALIZING CARTILAGINOUS TISSUE, AND A METHOD
FOR MANUFACTURING THEREOF
EA010724**

**PEPTIDE NORMALIZING METABOLISM IN BONE AND CARTILAGINOUS
TISSUES, PHARMACEUTICAL COMPOSITION BASED THEREON AND
METHOD FOR USE THEREOF
EA010574**

**PEPTIDE STIMULATING REGENERATION OF LIVER TISSUE,
PHARMACEUTICAL COMPOSITION BASED THEREON AND USE THEREOF
EA010156**

**TETRAPEPTIDE REGULATING BLOOD GLUCOSE LEVEL IN DIABETES
MELLITUS
UA85204**

**USE OF PEPTIDE PHARMACEUTICAL COMPOSITION AS A MEANS FOR
TREATMENT OF HELICOBACTER PYLORI INDUCED GASTRODUODENAL
DISEASES
EA021849**

**BIOACTIVE BEVERAGE
RU2377936**

**PHARMACEUTICAL COMPOSITION ON BASIS OF PEPTIDE POSSESSING
ANTITUMORAL ACTION
RU2362579**

**PHARMACEUTICAL COMPOSITION BASED ON PEPTIDE REGULATING
DISTURBANCES OF ANGIOGENESIS, AND WAY OF ITS APPLICATION
RU2363488**

**PEPTIDE PHARMACEUTICAL COMPOSITION NORMALISING URINATION,
AND METHOD OF APPLICATION THEREOF
RU2367467**
