

TOWNSEND LETTER *for Doctors & Patients*

THE EXAMINER OF MEDICAL ALTERNATIVES

**Thymus Gland Reactivation
to Overcome the Symptoms
of Hepatitis & Other Immune
System Pathologies**

**A Hidden Side Effect of
“Statins” – How Sugar Sets
the Stage for Infection**

Cuba’s Green Revolution

**Emanuel Revici, MD:
Pioneer in Cancer Therapy**

**The Link Between
Infections and Heart Disease**

**Garlic Extract
An Old/New Supplement**

**Heart Health –
Under The Tuscan Sun**

Herbal Treatment for ITP

**Naturopathic Approach
to Children’s Illnesses**



Medical Journalist Report of Innovative Biologics

by Morton Walker, DPM with Randall Walker

Copyright 2004 by Dr. Morton Walker

Freelance Communications

484 High Ridge Road • Stamford, Connecticut 06905 USA

Phone 203-322-1551 • Fax 203-322-4656

Email: Drmortwalker@cs.com • Website: www.Drmortonwalker.com

The Legacy of Carson B. Burgstiner, MD: Thymus Gland Reactivation to Overcome the Symptoms of Hepatitis & Other Immune System Pathologies

This Medical Journalist Report cites results from peptides of a complete thymic formula orally administered by health care professionals who treat immune system dysfunctions

After six-years of experiencing a variety of illness symptoms each day including the inability to work because of chronic fatigue, diarrhea, arthralgia, malaise, nausea and vomiting, fever, insomnia, variable jaundice, fluctuating liver enzyme readings, and additional flu-like discomforts, in 1992, certified nutritional consultant Ramona Jones, CNC, of Shawnee, Oklahoma, was told she had hepatitis C. Her diagnosing physician wanted to put her on a non-nutritional medical protocol using interferon which Ms. Jones refused to accept. "Consequently, the doctor, who offered no other treatment, said he did not want to see me again," Ms. Jones tells us. "So I decided to learn as much as possible about hepatitis C and take care of myself. It required that I study those particular foods, nutritional supplements, glandular factors, amino acids, herbs, and other items that are advantageous for healing the liver.

"I tried many nutritional products, but the one that relieved me of all signs and symptoms of hepatitis C within four weeks is a complete thymic formula developed in the 1980s by the Savannah, Georgia holistic physician Carson B. Burgstiner, MD. His complete thymic formula contains calf thymus extract, other glandulars, digestive enzymes, several herbs known for liver and immune system support, and a fully-packed vitamin-mineral complex," explains the nutritional consultant. "Now, to prevent the return of any hepatitis discomforts, I stay on Dr. Burgstiner's formula for half-a-year, and then alternate with other products for another six months. But I never go for more than that half-year period without returning to Dr. Burgstiner's Complete Thymic Formula®.

"Because it has given me such excellent results, I make the Burgstiner formula part of my protocol for treating all patients who consult me with any type of acute or chronic liver pathology such as hepatitis B, C, D, E,

cytomegalovirus, Epstein-Barr virus, ulcerative colitis, Crohn's disease, liver damage from the prolonged ingestion of drugs such as acetaminophen, or cirrhosis from drinking excess alcohol," Ms. Jones states. "I have been using the Complete Thymic Formula® in my practice for twelve years and dispense it like hot cakes to patients suffering from any of the hepatocellular pathologies. This is an effective formula for nutritional supplementation. It builds the immune system for healing.

"I have people telling me that their improvements are dramatic and fast. They just refuse to be without Dr. Burgstiner's formula. Medical doctors refer their patients to me to acquire quantities of it. There is nothing in this Complete Thymic Formula® that can cause adverse side effects or some other harm. The patient's physiology utilizes what it needs and throws off the rest. My treatment concept is that everything we need for healing is right here on earth, and all that's required is for each person to experiment so as to learn what works best," says Ramona Jones, CNC.

Donald P. Dennis, MD Performs a Research Study

In Atlanta, Georgia at the Atlanta Center for Ear, Nose, Throat, and Facial Plastic Surgery, the center's otolaryngologist/medical director Donald P. Dennis, MD, conducted studies on 639 Chronic Rhinosinusitis (CRS) patients to determine their nasal mucus and submucosa hypersensitivity reactions. Thereafter Dr. Dennis carried out a 14-year follow-up of these same subjects. Although not naming the Burgstiner product in his paper published in the July 2003 *Archives of Environmental Health*¹ (but printed a full year later), he discussed his therapeutic success with CRS using Dr. Burgstiner's Complete Thymic Formula®.

"My experience is mostly in the treatment of sinusitis arising from environmental mold, and this paper describes how I took the environmental air plus sinus tissue samples and measured their content for mold. Nutritional support provided by Dr. Burgstiner's formula aids in the sinuses' recovery, but environmental correction of mold content is mandatory to achieve such recovery," affirms Dr. Dennis. "The study's subjects were given bovine thymus gland

support, but I did not name the Complete Thymic Formula® in my report because I did not want any otolaryngology colleagues who read it to think I was trying to sell something.



Dr. James L. Wilson Conducts a Medical Literature Search to Learn About the Therapeutic Benefits of Thymic Extract

James L. Wilson, PhD, conducted a medical literature search in order to learn exactly what thymic extract accomplishes when taken internally to affect human physiology. Dr. Wilson states: "Thymic hormones and their downstream cell products (such as interleukins and interferons) control all phases of maturation, development, antigen commitment, proliferation, and cytotoxic activity of the various T-cells. Thymic hormones also stimulate non-specific phagocytic and cytotoxic cells to respond against foreign or 'nonself' antigens."¹¹

The following annotated listing (with references) from the written works of Dr. James Wilson and clinical experiences of practitioners offers you knowledge about illnesses responding positively to certain molecules in thymic extracts such as the Complete Thymic Formula®:

Infections of many types are attacked by macrophages, natural killer (NK) cells, granulocytes, T-lymphocytes and B-lymphocytes when they are stimulated into activity by the protein content of thymus extract.¹²

Respiratory ailments are reduced by the Thymomodulin protein present in thymic extract which increases neutrophilic, CD3, and CD4 cellular functions plus salivary IgA levels.¹³ There is also normalization of the number and function of T-cells in children with respiratory ailments when calf thymus extract is used.¹⁴

Adult bronchitis responds to calf thymus extract with a decreased number and severity of bronchial episodes.¹⁵

Chronic spastic bronchitis reacts well to calf thymic extract injections in conjunction with prednisolone.¹⁶

Bronchial asthma with atopic dermatitis clears up from the administration of Thymomodulin in thymic extract.¹⁷

Angina and bronchitis in combination respond better to thymic extract than nitroglycerin under the tongue.¹⁸

Chronic obstructive pulmonary disease (COPD) shows positive effects from Thymostimulin hormone in thymic extract.¹⁹

Herpes simplex reacts successfully to calf thymic extract.²⁰

Herpes zoster clears up quickly with reduction in size and number of lesions from Thymostimulin hormone in thymic extract.²¹

Acute and chronic hepatitis B significantly decrease from injections of calf thymus extract.²²

Chronic cholestatic hepatitis and primary biliary cirrhosis are successfully treated with calf thymus extract.²³

Recurrent aphthous stomatitis (RAS) finds benefit from calf thymic extract.²⁴

Chronic dysentery from shigella infection has its pathogenic organisms eradicated by thymic extract.²⁵

Combined immunodeficiency diseases respond to the TPI hormone in thymus extract.²⁶

Acquired immune deficiency syndrome (AIDS) is advantageously affected by Thymomodulin in bovine thymus.²⁷

Immunosenescence (immune effects of aging) tends to return to a normal number of peripheral blood lymphocytes and monocytes from exposure to the Thymodulin in calf thymus.²⁸

Allergies, as manifested by rhinitis, bronchial asthma, and atopic dermatitis, improve when given TP-1 hormone in thymus extract.²⁹

Atopic eczema disappears when treated with Thymodulin in thymic extract.³⁰

Psoriasis responds moderately well to calf thymus injections derived from bovine thymus extract.³¹

Rheumatoid arthritis shows clinical improvement when treated with calf thymus extract.^{32,33}

Systemic lupus erythematosus (SLE) responds well to bovine thymus extracts.^{34,35}

Scleroderma shows results from treatment with thymic extract.³⁶

Small cell lung cancer responds to Thymostimulin in thymic extract.³⁷

Primary carcinoma of the larynx responded to Thymostimulin in liquid thymus extract.³⁸

Hodgkin's disease (lymphogranulomatosis) exhibits an increase in immune parameters from treatment with thymic extract.^{39,40}

Breast cancer improves by 70% over controls when given thymic extract.^{41,42}

Colorectal and gastric cancers postsurgically show good results from treatment with Thymostimulin in thymus extract.⁴³

Suppurative surgical infection (SSI) among infants is less severe with thymic extract treatment.⁴⁴

Orthopedic implants heal better and avoid infection from use of Teicoplanin hormone in thymus extract.⁴⁵

Abdominal surgery exhibits notable reduction of postoperative infection when treated with Thymostimulin in thymus extract.⁴⁶

Surgery for the immunocompromised exhibits reduced morbidity and postoperative hospitalization and mortality when treated with Thymostimulin in thymic extract.⁴⁷

Burns show less infection when treated with Teicoplanin in thymic extract.⁴⁸

Preeclampsia and eclampsia respond with marked immunostimulation when receiving T-activin in bovine thymus.⁴⁹

Age-related defects in cell-mediated immunity reverse by enhanced immune function arising from bovine thymus use.⁵⁰

Childhood food allergies lessen their symptoms when managed by Thymomodulin in bovine thymus.⁵¹

Carson Burgstiner, MD

➤ “I have been prescribing this formula over lots of years for patients affected by allergies, autoimmune diseases, antinuclear antibodies, and other otolaryngological conditions. I advise the patients to fill my thymic prescriptions at the pharmacy. For the most part they can take it without difficulty – there’re no side effects except for a rare occurrence of stomach upset. It’s standard for me to use it for the treatment of systemic fungal symptoms and for chronic infection within the sinuses. It works well for arthritis complications secondary to mold exposure. As an immune stimulant for increasing a person’s T-cell population, the Complete Thymic Formula® is an integral part of my nutritional protocol; it could additionally be useful for the treatment of Lyme disease,” states Donald P. Dennis, MD.

Content of the Complete Thymic Formula®

The human thymus shrinks from its maximum size during the teenage period to less than pea-size as one ages. Located behind the breastbone, the thymus gland secretes thymosin, a hormone that strengthens immune response. As the gland reduces in size, an individual’s immunity to toxic agents tends to lessen. That’s because the thymus gland has a lessened ability to instruct certain lymphocytes to specialize their function for elevating or lowering activities of the immune system. An example of this activity is how it increases the number of T-lymphocytes to turn them into helper CD4 or suppressor CD8, or natural killer CD56 cells.

Helper cells facilitate the production of antibodies by the B cells. Suppressor cells obstruct B-cell activity.²

Natural killer (NK) cells are nonspecific, free-ranging immunological factors produced in the bone marrow and matured in the thymus. NK cells can recognize and quickly destroy viruses and cancer cells on first contact. Armed with an estimated 100 different biochemical poisons for killing foreign proteins, NK lymphocytes can destroy target cells without having encountered them previously. Their role is surveillance, to rid the body of aberrant or foreign cells before they can grow and produce cancer or other degenerations. Decreased numbers of NK cells are linked to the development and progression of degenerative disease, as well as chronic and acute viral infections, cancer, and other deficiencies of the immune system.³

The tissue extract in Complete Thymic Formula® taken from bovine thymus when ingested orally or by injection migrates directly to the human thymus gland to support that gland for fulfilling the body-regulating and balancing functions assigned to it. The legacy left by Dr. Burgstiner is that decades ago, in attempting to combat his own hepatitis viral condition, the physician recognized that thymic extract normalizes the ratio of T-helper cells to T-suppressor cells whether the ratio is low as in AIDS,

chronic infections and cancer, or high as present in allergies and autoimmune diseases (exemplified by psoriasis and rheumatoid arthritis).⁴

Modifying immunity up or down, thymic factors influence the immune response as the body needs it, and so Dr. Burgstiner included bovine thymus into the nutritional supplement that he had created for himself.⁵

Adjunctive to the product’s thymus factors and glandulars which consist of thymus enzymatic polypeptide fractions, thymosis, thymopoietin, and thymic humoral factor (THF) are:

- the additional organ extracts of spray/freeze-dried raw spleen, raw lymph, raw bone marrow, raw pituitary;
- the vitamin/mineral complex containing vitamins A, C, D, E, B1, B2, B3 in the form of niacinamide, B6, B12, folic acid, biotin, para aminobenzoic acid (PABA), inositol, and pantothenic acid;
- minerals involving calcium, iodine, magnesium, copper, zinc, selenium, potassium, manganese, chromium, boron;
- herbs including *Echinacea angustifolia* (angustifolia root extract), *Iris versicolor* extract (blue flag root), *hydrastis Canadensis* (Golden Seal Root Extract);
- citrus bioflavonoids such as rutin and hesperidin;
- fatty acids including octacosanol;
- amino acids inclusive of L-lysine, L-phenylalanine, L-arginine, L-cystine, L-histidine, L-ornithine, L-isoleucine, L-leucine, L-threonine, L-valine, and L-methionine;
- enzymes such as trypsin, bromelain, papain and betaine hydrochloride.

Physician Carson Burgstiner Emphasizes Thymus Health

As mentioned, out of frustration with finding treatment for his own liver infection, the Savannah, Georgia obstetrician/gynecologist investigated the bolstering of thymic function for decreasing symptoms of hepatitis. Dr. Burgstiner’s successful outcome did encourage him to make his glandular extracts and nutritional formulas available to the general public. After his death in 1997, the formulations’ manufacturer became the doctor’s son, John Burgstiner, President of Preventive Therapeutics, Inc.

Glandular extracts are well-known to practitioners of homeopathic medicine, but the application advocated by Dr. Burgstiner is much more direct. He had devised methods to harness the immunological compounds concentrated in organ extracts, and listed above we have noted the PTI combinations with other nutraceuticals known to enhance thymic function. Dr. Burgstiner created these nutritional combinations, including Liver C/S Plus™ for boosting liver function, the vegetarian gastrointestinal formula named Essential Digestion™, and the blend of super potency probiotic cultures called Essential Flora™. Used together they offer a full protocol for physiological health. Thus, the four nutritional formulas developed by

the father and currently manufactured by his son, provide healers and their patients with natural alternatives to pharmaceutical drugs and synthetic chemicals.

Thymic Hormonal Reactivation of the Immune System

There have long been associations detected among various endocrine glands – the pituitary, thyroid, adrenals, gonads, and thymus.^{6,7} As an example, a person's loss of pituitary or thyroid function promotes thymic involution, and administration of the endocrine products of these organs is restorative. Thymus activity also is linked to adrenal and gonadal function; plus, the human pituitary gland has a primary regulatory control over the thymus.⁸

Thymus endocrinology, therefore, is characterized by the action of many hormones and hormone-like substances on the cellular components of the thymus, including thymocytes, thymic epithelial cells, and thymic stromal cells. The intrathymic environment is characterized by a complex network of paracrine, autocrine, and endocrine signals involving the tiny peptides of interleukins and other thymic peptides, which operate in a synergistic network to carry each ever-evolving T-lymphocyte through its stepwise development to a mature T-cell.

It's known that the human and animal thymus produces at least seven putative thymic hormones: (1), thymopoietin, (2) thymosin alpha₁, (3) thymulin, (4) thymic humoral factor, (5) hormonal thymic factor, (6) serum thymic factor, and (7) numbers of other thymic factors such as interleukins IL₁, IL2, IL3, IL6, all of which circulate and act on both prothymocytes and mature T-cells in the physiological periphery.⁹ These multiple thymus hormones maintain their commitment to the T-cell system and help to keep it viable. An individual's endocrine system influences decline with age and is associated with "thymic menopause" (for both men and women) and cellular immune senescence, which contributes to the development of diseases in the aged.

When T-cells become depleted in the body's periphery, a signal arises in the thymus gland that initiates the processing of immature thymocytes. Then, reseeded of the T-cell population in the periphery takes place. Another set of signals derived from the two interleukins we know as IL₁ and IL₂ develops from the immune system as a result of its intense stimulation. Under these circumstances, both the replenishment and the augmentation of T-lymphocytes result from circulatory hormones acting at the level of the thymus. The thymic peptide "language" of T-cell development is an interleukin language in which IL₁ and IL₂ drive the stepwise evolution.¹⁰

Peptides in the Complete Thymic Formula®

The thymus product manufactured by Preventive Therapeutics, Inc. is a dietary supplement derived from juvenile, farm-grown cows. It contains thymus proteins and peptides in their native and undenatured form. It's comprised of small peptides and other thymus-derived factors which actually amount to processed bovine thymus

Carson Burgstiner, MD

gland (never synthesized). One captab of the product furnishes a user with bioavailable thymus nutrient factors.

The extract, which allows for bovine thymic hormonal absorption, stimulates non-specific phagocytic and cytotoxic immune system cells to respond against foreign or "non-self" antigens. Such activity helps to control all phases of maturation, development, antigen commitment, proliferation, and cytotoxic action of an individual's immunological T-cells of the various types.

Four Health Professionals Dispense the Thymic Formula

A vast number of health problems, including really serious pathologies, respond positively to thymus gland extract. The sidebar provided is reproduced from a literature search carried out by holistic physiologist James L. Wilson, PhD.

Four health professionals whom we interviewed as well offer pertinent direct quotes. Speaking with us from Decatur, Georgia, Jane Saadeh, DC, ND, says, "I have been dispensing the Complete Thymic Formula® to my patients for eight months and find it a unique product to overcome problems with their immune systems, chronic fatigue, general fatigue, and much more. I test them using behavioral kinesiology and find that they react strongly when in contact with this product. I use it for those who need building up and for more serious health problems such as hepatitis C, allergies, and fibromyalgia. My results have been excellent, inasmuch as this Burgstiner formula seems to work better than any other thymic product I have tried. It up-regulates the patients' body systems throughout."

Chris Meletis, ND, Medical Director of the Pearl Clinic and Pharmacy in Portland, Oregon, says: "I prescribe the Complete Thymic Formula® as an immune system stimulant for people who are chronically ill and don't respond to usual herbal therapies. The typical responding patient will have had an elevated viral load as frequently occurs in Epstein-Barr, hepatitis, cytomegalovirus, influenza, and others. I've used it on myself for the elimination of colds, bronchitis, and additional minor infections. This thymus remedy cuts upper respiratory infections to less than one-third of their previous amount of time. I also dispense the Complete Thymic Formula® to my wife and children."

The acupuncturist at Son Ridge Health Center in St. Augustine, Florida, John Garvey, LAc, advises: "I have personally been using the thymic formula since 1990 when I first met Dr. Carson 'Bucky' Burgstiner, who had been a patient of mine for a short period. The marvelous track record he had accumulated with his thymic invention caused me to try it. Now, 14 years later, I am still taking the Complete Thymic Formula®. Nothing else comes near



Carson Burgstiner, MD



to being as effective as Bucky Burgstiner's product. I do try to take three doses of this unique dietary supplement twice daily and prescribe it for my patients in the same manner at every opportunity. The Complete Thymic Formula® is my basic prescribed supplement. I depend on it."

Naturopathic physician and massage therapist Mary Ann Armenteros, ND, Medical Director of the Cerritos Pain Center in Artesia, California, says, "I believe that disease begins in the gut from dysfunctioning of the immune system. By application of the Complete Thymic Formula®, patients as well as myself feel better in all parameters. We become sick less often. I use this nutritional supplement for anything and everything: fibromyalgia, cancer, and any other type of degenerative disease, irritable bowel syndrome and other digestive disorders, and any injury for which patients are attending this pain center; in brief, I dispense the thymus formula for just about every kind of discomfort that would be treatable naturopathically. And to the Complete Thymic Formula® I add Dr. Burgstiner's Essential Flora™, Essential Digestion™, and Liver C/S Plus™. It's mandatory to support the gut as well as the thymus gland."

Resource

For more information about the Complete Thymic Formula® surrounded by its Vitamin/Mineral Complex along with other immunity-building nutritional supplements in the PTI Wellness Protocol, including Essential Digestion™, Essential Flora™, and Liver C/S Plus™, contact the products' manufacturer, John Burgstiner, Preventive Therapeutics, Inc. (PTI), at 2020 Westside Court, Suite A, Snellville, Georgia 30078 USA; 800-556-5530 or 770-972-2129; Fax 770-972-3646; E-mail: John@thymic.com; and see the PTI website: www.thymic.com

References

1. Dennis, D.P., Chronic sinusitis: Defective T-cells responding to superantigens, treated by reduction of fungi in the nose and air. *Archives of Environmental Health*. 58(7):433-441, July 2003.
2. Diamond, W. J.; Cowden, W.L.; Goldberg, B. *An Alternative Medicine Definitive Guide to Cancer*. (Tiburon, California: Future Medicine Publishing, Inc., 1997), p. 524.
3. *Ibid*.
4. Cazzola, P.; Mazzanti, P.; Bossi, G. In vivo modulating effect of a calf thymus acid lysate on human T-lymocyte subsets and CD4+/CD8+ ratio in the course of different diseases. *Current Therapeutic Research* 42:10011-1017, 1987.

5. Kouttab, N.M.; Prada, M.; Cazzola, P. Thymomodulin: Biological properties and clinical applications. *Medical Oncology and Tumor Pharmacotherapy* 6:6-9, 1989.
6. Fabris, N.; Mocchegiani, E.; Muzzioli, M.; Provinciali, M. Neuroendocrine-thymus interactions. In *Interactions Among Central Nervous System, Neuroendocrine and Immune Systems*. J.W. Hadden, K. Masek, and G. Nistico, Eds. (Rome: Pythagora Press, 1989), pp. 177-189.
7. Maestroni, G.J.M.; Conti, A.; Pierpaoli, W. The pineal gland and the circadian, opiate, immunoregulatory role of melatonin. *Annals of the New York Academy of Science*. 496:67-77, 1987.
8. Duquesnoy, R.J. and Good, R.A. Prevention of immunologic deficiency in pituitary dwarf mice by prolonged nursing. *Journal of Immunology*. 104:1553-1555, 1970.
9. Komuro, K. and Boyse, E.A. Induction of T-lymphocytes from precursor cells in vitro by a product of the thymus. *Journal of Experimental Medicine*. 138:479-484, 1973.
10. Hadden, J.W.; Chen, H.; Wang, Y.; Hadden, E.M. Strategies of immune reconstitution: Effects of lymphokines on murine T-cell development in vitro and in vivo. *Life Science AIDS Committee*. 44:5-12, 1989.
11. Wilson, J.L. Thymus extracts. Live Cell Fractions Therapy™. *Physicians Research & Information Series*, pp. 1 & 2, 1995.
12. *Op. cit.* Kouttab, N.M.; Prada, M.; Cazzola, P., 1989.
13. Fiocchi, A.; Borella, E.; Riva, E.; Arensi, D.; Traglini, P.; Cazzola, P.; Giovannini, M. A double blind clinical trial for the evaluation of the therapeutical effectiveness of a calf thymus derivative (Thymomodulin) in children with recurrent respiratory infections. *Thymus*. 8:331, 1986.
14. Radomska, KG.; Jankowski, A.; Prusek, WK. Immunomodulation in children with recurrent infections of respiratory tract. In: Chyrek-Borowska, S. (ed.), *Immunomodulation*. (Bailowieza, Poland: Polish Immunological Society, 1987), p. 46.
15. Stankiewicz-Szymezak, W.; Moszanski, B.; Dabrowski, M.P.; Dabrowski-Bernshtein, B.K.; Stasiak, A. The initial results of TFX-Polfa applicaton in patients with chronic recurrent infections of upper respiratory tract. *Pol. J. Otolaryng*. 2:350, 1986.
16. Matusiewicz, R.K.; Wasniewski, J.; Kowalczyk, M.; Lebidowski, K.; Czajkowski, M. The effect of TFX-Polfa on peripheral blood granulocyte migration in phagocytize ability in patients receiving steroid therapy. In Chyrek-Borowska, S. *Immunomodulation*. (Bailowieza, Poland: Polish Immunological Society, 1987), p. 47.
17. Bagnato, A.; Brovedani, P.; Comina, P.; Molinaro, P.; Scalzo, C.; Triolo, V.A.; Milani, G. Long term treatment with Thymomodulin reduces airway hyperresponsiveness to methacholine. *Annals of Allergy*. 62(5):425, May 1989.
18. *Op. cit.* Fiocchi, A.; Borella, E.; Riva, E.; Arensi, Dk.; Traglini, P.; Cazzola, P.; Giovannini, M., 1986.
19. Frolov, V.M.; Peresadin, N.A.; Ershova, I.B.; Demenkov, V.R.; Miakina, A.V. The immunomodulating action of vilozen and splenin in angina patients against a background of chronic bronchitis. *Vrachebnoe Delo*. (8):79, Aug. 1992.
20. *Op. cit.* Skotnicki, A.B., 1989.
21. Grismondi, G.L.; Marini, A.; Scivoli, L.; Rigoni, I. Human fibroblast interferon therapy alone and human fibroblast interferon combined with Thymostimulin in genital papillomavirus infection associated with cervical intraepithelial neoplasia. *Minerva Ginecologica*. 43(12):581, Dec. 1991.

22. Kicka, W.; Juszczak, J.; Adamek, J.; Orzynski, R. Thymic factor X (TFX) in the treatment of acute and chronic active hepatitis type B. In: *International Congress of Infectious and Parasitic Diseases*. Munich, 1986.
23. Radchenko, V.G.; Mitrofanova, T.I.; Serebriakova, V.I.; Vinogradova, G.L. The efficacy of immunomodulating preparations in treating patients with chronic cholestatic liver diseases. *Vrachebnoe Delo*. (11-12):38, Nov.-Dec. 1992.
24. Skotnicki, A.B.; Dabrowska-Bernstein, B.K.; Babrowski, M.P.; Gorski, A.; Czarnecki, J.; Aleksandrowicz, J. Biological properties and clinical use of calf thymus extract TFX-Polfa. In: Goldsten, A.L. (ed.), *Thymic Hormones and Lymphokines*. (New York City: Plenum Press, 1984), p. 545.
25. Guliamov, N. and Kriuchkov, M.I. The correction of disorders in the cytoenzymatic status of the immunocytes in shigella infections by using taktivin. *Terapevitcheskii Arkhiv*. 63(11):27, 1991.
26. Davies, E.G. and Levinsky, R.J. Treatment of cell-mediated immunodeficiency with calf thymic hormone (TPI). *Periatr. Res*. 16:573, 1982.
27. Valesini, G.; Barnaba, V.; Benvenuto, R.; Balsano, F.; Mazzanti, P.; Cazzola, P. A calf thymus lysate improves clinical symptoms and T-cell defects in the early stages of HIV infection: second report. *European Journal of Cancer and Clinical Oncology*. 23:1915, 1987.
28. Weksler, M.E. The senescence of the immune system. *Hospital Practice*. 16:53, 1981.
29. Tas, M.; Leezenberg, J.A.; Drexhage, H.A. Beneficial effects of the thymic hormone preparation Thymostimulin in patients with defects in cell-mediated immunity and chronic purulent rhinosinusitis. A double-blind cross-over trial on improvements in monocyte polarization and clinical effects. *Clinical & Experimental Immunology*. 80(3):304, June 1990.
30. Pecora, R.; Cherubini, V.; Cardinale, G.; Bartolotta, E. Circadian variability of IgE in children: Effects of a thymic hormone (Thymomodulin). *Pediatria Medica E Chirurgica*. 13(3):277, May-June 1991.
31. *Op. cit.* Skotnicki, A.B., 1989.
32. Skotnicki, A.B.; Hozowska, B.; Szerla, J.; Biedowa, E. The effect of calf thymus extract TFX-Polfa on clinical and laboratory parameters in patients with rheumatoid arthritis. In: *Abstracts*. (Toronto: 6th International Congress of Immunology, 1986), p. 679.
33. Lsisz, B.; Zdrojewicz, Z.; Dul, W.; Strychalski, J. Clinical trial of the treatment of rheumatoid arthritis with TFX (Thymus Factor X). *Iwiadomosci Lekarskie*. 43(17-18):870, Sept. 1990.
34. Kartasheva, V.I.; Tarasova, L.R.; Zairatians, O.V.; Belokrinitskii, D.V. T-activin in multimodal treatment of systemic lupus erythematosus in children. *Pediatria*. (3):47, 1991.
35. Romanov, V.A.; Borodin, A.G.; Krylov, V.L. The use of taktivin for modulating the functional activity of the neutrophilic granulocytes in patients with systemic lupus erythematosus. *Terapevitcheskii Arkhiv*. 64(5):65, 1992.
36. *Op. cit.* Suchkova, Sharova, Suchkov, 1990.
37. Macchiarini, P.; Danesi, R.; Del Tacca, M.; Angeletti, C.A. Effects of Thymostimulin on chemotherapy-induced toxicity and longterm survival in small cell lung cancer patients. *Anticancer Research*.9(1):193, Jan.-Feb. 1989.
38. Mantovani, Gk.; Proto, E.; Lai, P.; Turnu, E.; Sulis, G.; Puxeddu, P.; Del Giacco, F. Controlled trial of Thymostimulin treatment of patients with primary carcinoma of the larynx resected surgically: Immunological and clinical evaluation and therapeutic prospects. *Recenti Progressi in Medicina*. 83(5):303, May 1992.
39. Martelli, M.F.; Velardi, A.; Rambotti, P.; Cerneti, C.; Bertotto, A.; Spinozzi, F.; Bracaglia, A.M.; Falini, R.; Davis, S. The in vivo effect of a thymus factor (Thymostimulin) on immunologic parameters of patients with untreated Hodgkin's disease. *Cancer*. 50:490, 1982.
40. Makhonova, L.A.; Susuleva, N.A.; Illiashenko, V.V.; Poliakov, V.E. Treatment of lymphogranulomatosis in children. *Pediatria*. (11):98, 1991.
41. Alba, E.; Visentin, L.; Farina, C.; Wierdis, T. Prevention of infection and improvement of anesthesia with Thymostimulin during chemotherapy following mastectomy. *Minerva Ginecologica*. 43(12):585, Dec. 1991.
42. Negi, L.; Calabrese, F.; Correggia, F.; Miozzo, S.; Giacomasso, S. Chemotherapy and Thymostimulin in the treatment of advanced-stage breast neoplasms. *Minerva Medica*. 83(5):283, May 1992.
43. Ciconi, E.; Capoluongo, R.; Balduzzi, G.F.; Balzaretto, F.; Orecchia, C. Perioperative treatment with Thymostimulin in patients with stomach and colorectal neoplasms. Our experience with 114 cases. *Minerva chirurgica*. 47(10):939, May 1992.
44. Samsygin, S.A.; Dolgina, E.N.; Arion, V.Y.; Romanova, L.A.; Shchevochkina, G.I.; Ovchinnikova, E.A. The effect of using T-activin in the therapy of the newborn with suppurative surgical infection. *Journal of Hygiene, Epidemiology, Microbiology & Immunology*. 33(3):269, 1989.
45. Periti, P.; Stringa, G.; Donati, L.; Mazzei, T.; Mini, E.; Novelli, A. Teicoplanin: its role as systemic therapy of burn infections and as prophylaxis for orthopaedic surgery. Antimicrobial prophylaxis in orthopaedic surgery and burns. *European Journal of Surgery - Supplement*. 567:3, 1992.
46. Perotti, F.; Landi, G.; Primatesa, F.; Colombo, A.; David, P.G.; Castellaro, E.; Baraldi, U. Thymostimulin immunoprophylaxis in elective abdominal surgery. *Minerva Chirurgica*. 47(12):1091, June 1992.
47. Lai, N.; Lavosi, V.; Pinna, S.; Salis, G.; Colombo, E.; Vargiu, P. Postoperative infections: The use of thymostimulin (TPI) in patients at risk. *Giornale di Chirurgia*. 13(6-7):377, 1992.
48. *Op. cit.* Periti, Stringa, Donati, Mazzei, Mini, Novelli., 1992.
49. Ianiushina, V.V. The use of T-activin in the intensive therapy of the postoperative period in gestosis patients. *Anesteziologia I Reanimatologia*. (4):42, 1992.
50. Carrola, P.; Mazzanti, P.; Bossi, Gk. *In vivo* modulating effect of calf thymus and lysate on human T-lymphocyte subsets and CD4 plus - CD8 plus ratio in the cause of different diseases. *Current Therapeutic Research*. 42:1011-1017, 1987.
51. Gneova, R. and Guerra, A. Thymomodulin in the management of food allergy in children. *International Journal of Tissue Reaction*. 8:239-242, 1986.