Use of active substances in the therapy of certain diseases, process for preparing a pharmaceutical composition for that purpose and pharmaceutical compositions thus prepared

Abstract

An active substance from the group composed of tannins, catechins, humines, humic acids, gallic acid, gallates, tanning substances, depsides, gallic extracts, ellagic acid, chikimic acid and flavonoids, as well as compounds, in particular salts, derivates and precursors from said substances, or a combination of two or more of said active substances, are used in the therapy of asymptomatic HIV infections, other diseases caused by retroviruses, systemic opportunistic infections of clinical AIDS, hepatitis B infections, malaria and/or cancerous diseases.

Classifications

A61K35/10 Peat; Amber; Turf; Humus

View 1 more classifications

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Info: Patent citations (5), Non-patent citations (2), Cited by (3), Legal events, Similar documents, Priority and Related Applications

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Claims

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Expectations

1. Use of an active substance from the group: tannins, catechins, humic substances, humic acids, gallic acid, gallates, tannins, deposits, bile extracts, ellagic acid, chikimic acid and flavonoids as well as compounds, in particular salts, and derivatives and precursors of the aforementioned substances, or a combination of two or more of these active substances for the treatment of asymptomatic HIV infections and / or other retrovirally caused diseases and / or systemic opportunistic infections in full screen AIDS and / or hepatitis B infections and / or malaria and / or cancer.

2. Use according to claim 1, characterized in that at least one of the active substances is obtained synthetically.

3. Use according to claim 1 or 2, characterized in that at least one of the active substances is obtained from at least one natural product.

4. Use according to claim 3, characterized in that at least one of the active substances is obtained from coal.

5. Use according to claim 3 or 4, characterized in that at least one of the active substances is obtained from brown coal.

6. Use according to one of claims 3 to 5, characterized in that at least one of the active substances is obtained from ore (s).

7. Use according to one of claims 3 to 6, characterized in that at least one of the active substances is obtained from humus sludge, bog sludge, sewage sludge or sea sludge.

8. Use according to one of claims 3 to 7, characterized in that at least one of the active substances is obtained from peat.

9. Use according to claim 8, characterized in that at least one of the active substances is obtained from peat bog and peat.

10. Use according to claim 8, characterized in that at least one of the active substances is obtained from bog peat.

11. Use according to one of claims 8 to 10, characterized in that at least one of the active substances is obtained from peat with a degree of humosity (according to von Post) of H3-H10.

12. Use according to one of claims 8 to 11, characterized in that at least one of the active substances is obtained from freshly mined peat.

13. Use according to one of the preceding claims, characterized by a preparation of the active ingredient or combination of active ingredients as an orally administrable drug.

14. Use according to one of claims 1 to 13, characterized by a preparation of the active ingredient or combination of active ingredients as an injectable drug.

15. Use according to one of claims 1 to 13, characterized by processing the active ingredient or combination of active ingredients as an externally applicable drug.

16. A method for producing a pharmaceutical preparation, characterized by the following steps:

Disintegrating peat material; Extracting the peat material by steam distillation to obtain a distillate; and processing the distillate in a conventional manner for use as an injectable, oral administrable or topical medicinal product.

17. A method for producing a pharmaceutical preparation, characterized by the following steps:

Disintegrating peat material; alkaline digestion of the peat material; Centrifuging the supernatant liquid after cooling the reaction mixture; Separating the supernatant liquid after centrifugation; Neutralize the supernatant liquid; Removal of the salt formed by the neutralization; and preparation in a conventional manner for use as an injectable, orally administrable or externally applicable medicament.

18. A method for producing a pharmaceutical preparation, characterized by the following steps:

Disintegrating peat material; Extracting the peat material by steam distillation to obtain a distillate; alkaline digestion of the remaining residue from steam distillation; Centrifuging the supernatant liquid after cooling the reaction mixture; Separating the supernatant liquid after centrifugation; Neutralize the supernatant liquid; Removal of the salt formed by the neutralization; Combining the supernatant liquid and the distillate from the steam distillation; and preparing the mixture in the usual manner of the mixture for use as an injectable, administrable or externally applicable medicament.

19. The method according to claim 18, characterized in that the peat material is additionally swollen with water after disintegration and before steam distillation.

20. The method according to claim 18 or 19, characterized in that for the digestion of the solid residue after steam distillation NaOH in a concentration of 10 - 25 wt .-%, based on the residue together with water content, is used.

21. The method according to any one of claims 18 to 20, characterized in that the alkaline digestion of the residue from steam distillation by

Slurry with an aqueous alkaline solution, boil and let the slurry boil for at least 5 but at most 100 min. Top up with hot water to 1.5-5 times the volume and autoclave, preferably at a pressure of 2.5 bar and 150 ° C.

22. The method according to claim 21, characterized in that HCl is used to neutralize the supernatant liquid from the centrifugation after the alkaline digestion.

23. The method according to claim 22, characterized in that the chloride formed is removed by dialysis.

24. A method for producing a pharmaceutical preparation, characterized by the following steps:

Disintegrating peat material; Extract the peat material by steam distillation for extraction a distillate; alkaline digestion of the remaining residue from steam distillation; Centrifuging the supernatant liquid after cooling the reaction mixture; Separating the supernatant liquid after centrifugation; Neutralize the supernatant liquid; Centrifuging the neutralized liquid; Separating the solid residue from the centrifugation; Drying of the residue and preparation in a conventional manner for use as an injectable, orally administrable or externally applicable medicament.

25. The method according to claim 24, characterized in that HCl is used to neutralize the supernatant liquid from the centrifugation after the alkaline digestion.

26. The method according to claim 25, characterized in that the salt formed is removed.

27. The method according to claim 26, characterized in that the solid residue from the last centrifugation is washed several times with distilled water.

28. The method according to claim 27, characterized in that the drying is carried out in a G freeze dryer.

29. Pharmaceutical preparation for the treatment of asymptomatic HIV infections and / or systemic opportunistic infections in full screen AIDS (and / or other retrovirally caused diseases) and / or hepatitis B infections and / or malaria and / or cancer, which can be prepared by a process according to one of claims 16 to 28.

Description

Use of active substances for the treatment of certain diseases as well as methods for producing a pharmaceutical preparation for this use and the pharmaceutical preparations which can be produced by this method

The invention relates to the use of one or more active substances for the treatment of asymptomatic HIV infections and / or other retrovirally caused diseases and / or systemic opportunistic infections in full screen AIDS and / or hepatitis B infections and / or malaria and / or cancer diseases and methods for Production of a pharmaceutical preparation for this use and the pharmaceutical preparations which can be produced by these processes.

Known as the new scourge of humanity, with the acronym AIDS (acquired immunodeficiency syndrome)

Disruption of the cellular immune system, which was first described in the U.S.A. in 1981, is caused by retroviruses, now commonly known as HIV (human immunodeficiency virus). HIV infection does not necessarily lead to AIDS, and epidemiological data suggest that HIV-positive carriers can live for more than 5 years without symptoms and without impairment of their health; however, they are considered potential virus eliminators and thus potential virus carriers.

To date, only drugs with high cytotoxicity and a number of other serious side effects have been known for combating HIV. In addition, the known preparations have in common that although they bring about an inhibition of the course of the disease, they cannot free the patient from HIV.

In some cases, very similar problems arise when combating other diseases caused by retrovirals and systemic opportunistic infections in full screen AIDS or diseases which are attributable to hepatitis B viruses or plasmodia (malaria), and for known cytosines for combating cancer.

The invention is therefore based on the object of specifying active ingredients which, with the least possible side effects, enable complete therapy of the diseases mentioned.

According to the invention, this object is achieved by using an active substance from the group: tannins, catechins, humic substances, hemic acids, gallic acid, gallates, Tannins, depside, bile extracts, ellagic acid, chikimic acid and flavonoids as well as compounds, especially salts, and derivatives and precursors of the aforementioned substances, or a combination of two or more of these active substances.

It is preferably provided that at least one of the active substances is obtained synthetically.

Alternatively or simultaneously, at least one of the active substances can be obtained from at least one natural substance.

It is proposed that at least one of the active substances be obtained from coal, preferably from brown coal.

The invention also proposes that at least one of the active substances is obtained from ore (s).

Another possibility is that at least one of the active substances is obtained from humus sludge, bog sludge, sewage sludge or sea sludge.

It is particularly preferred that at least one of the active substances is obtained from peat, either from upper moor peat or peat bog or from raised bog peat, preferably at least one of the active substances being obtained from peat with a degree of humidity (according to von Post) from H3-H10.

It may be preferable for at least one of the active substances to be obtained from freshly peat pits. The invention can provide for the preparation of the active ingredient or combination of active ingredients as an orally administrable drug, the preparation of the active ingredient or combination of active ingredients as an injectable drug, or the preparation of the active ingredient or combination of active ingredients as an externally applicable drug.

The invention also relates to methods for producing a pharmaceutical preparation for use according to the invention, optionally with the following sequence of steps:

a. Disintegrating peat material; Extracting the peat material by steam distillation to obtain a distillate; and preparation of the distillate in a conventional manner for use as an injectable, orally administrable or externally applicable medicament.

b. Disintegrating peat material; alkaline digestion of the peat material; Centrifuging the supernatant liquid after cooling the reaction mixture; Separating the supernatant liquid after centrifugation; Neutralize the supernatant liquid; Removal of the salt formed by the neutralization; and preparation in a conventional manner for use as an injectable, orally administrable or externally applicable medicament.

c. Disintegrating peat material; Extracting the peat material by steam distillation to obtain a distillate; alkaline digestion of the remaining residue from steam distillation; Centrifuging the supernatant liquid after cooling the reaction mixture; Detach the excess Liquid after centrifugation; Neutralize the supernatant liquid; Removal of the salt formed by the neutralization; Combining the supernatant liquid and the distillate from the steam distillation; and conventional further preparation of the mixture for use as an injectable and administrable or externally applicable medicament.

d. Disintegrating peat material; Extracting the peat material by steam distillation to obtain a distillate; alkaline digestion of the remaining residue from steam distillation; Centrifuging the supernatant liquid after cooling the reaction mixture; Separating the supernatant liquid after centrifugation; Neutralize the supernatant liquid; Centrifuging the neutralized liquid; Separating the solid residue from the centrifugation; Drying of the residue and preparation in a conventional manner for use as an injectable, orally administrable or externally applicable medicament.

In the procedure according to c. After disintegration and before steam distillation, the peat material is preferably additionally swollen with water.

It is preferably provided according to the invention that NaOH in a concentration of 10-25% by weight, based on the residue and water content, is used to digest the solid residue after steam distillation.

The alkaline digestion of the residue from the water vapor can be done by slurrying with an illation aqueous alkaline solution, boil and let the slurry boil for at least 5, but at most 100 min., fill up with hot water to 1.5 to 5.0 times the volume and autoclave, preferably at a pressure of 2.5 bar and 150 ° C, respectively.

HCl is preferably used to neutralize the supernatant liquid from the centrifugation after the alkaline digestion.

In this composition, the invention proposes to remove the chloride formed by dialysis.

When proceeding according to d. If the supernatant liquid from centrifugation is neutralized after the alkaline digestion, HCl is preferably used.

The salt formed is then preferably removed.

The solid residue from the last centrifugation can be washed several times with distilled water.

Drying is preferably carried out in a freeze dryer.

Finally, the invention also relates to a pharmaceutical preparation for the treatment of asymptomatic HIV infections and / or systemic opportunistic infections with full screen AIDS (and / or another retrovirally caused disease) and / or hepatitis B infections and / or malaria and / or cancer diseases, can be produced by one of the processes described.

The invention is based on the surprising finding that it is possible to combat the listed diseases effectively, and to the greatest possible extent by destroying the pathogens, such as HIV, HepB viruses or plasmodia (malaria pathogens), and / or inhibiting the proliferation of cancer cells by at least one of the claims 1 specified active substances is used in a therapeutically effective amount. A preferred pharmaceutical preparation for the treatment of the diseases listed is produced in accordance with the peat-based methods specified in claims 16-28.

Peat is a material that is predominantly made from vegetable, and to a small extent also from animal organisms. In its deposit, the bog, the biochemical process of peat removal (Hu ification) of dead plants in sedimentary deposits has been taking place for around 8,000 to 10,000 years. The first peat formations began around 12,000 years ago in the post-ice age. To date, they have not been completed in undisturbed bogs.

Raised bogs are independent of spring water, ground water or standing water, they only live on rain water and have an autonomous water regime. The peat of the raised bogs is very homogeneous, low in oxygen, low in lime and nitrogen and very acidic. The biology and chemistry of the transitional bog and peat bog differ from the raised bog and require different types of conservation; whereas only proteins survive in raised bogs, in transition bogs and low bogs a chemical conversion of body protein takes place.

The tanning effect of peat is well known, although this essentially affects the peat content Humic substances, on the other hand, can be attributed to the tannins contained in the peat.

The potential of peat as a source of therapeutically active compounds has hardly been tapped to date. However, therapeutic use is already known for some ingredients of peat, as also listed in claim 1 of the present invention. For example, DE-OS 22 06 570 describes the use of (+) - catechin in the oral, rectal and parenteral treatment of liver diseases. DE-OS 36 03 576 discloses the use of tannins or catechin-based tannins and / or of isolated chlorogenic acid, or their physiologically tolerable derivatives, as agents for reducing gastric acid secretion and / or for protecting the gastric mucosa. DE-OS 36 03 227 describes a pharmaceutical preparation for the treatment of inflammatory and allergic diseases of the gastrointestinal tract, the lungs and the skin, as well as diseases which are associated with an increased histamine content in the blood, this pharmaceutical preparation as an active substance being a mixture of (+) - Contains catechin and ascorbolysinate. From DE-OS 30 31 710 is finally the use of a reaction product of (+) - catechin with an essentially equimolar amount of L-lysine or L-arginine and hydrochloric acid, acetic acid, ascorbic acid or an equivalent amount of citric acid for the treatment of degenerative diseases of the connective tissue.

DE-OS 39 03 773 describes the bacteriocidal or bacteriostatic activity of humic acid made from coal, salts or derivatives thereof. DE-OS 37 07 909 describes the use of low molecular weight alkali or ammonium salts of humic acids have become known as healing agents in wound healing or for the production of highly effective mud baths. DE-OS 37 07 910 describes the same use of low molecular weight alkali metalates which are produced by a different process.

From DE-OS 38 30 333 a pharmaceutical composition for the external treatment of the blister disease caused by herpes viruses has become known, which contains potassium or sodium sulfide and humic acid, its salts or corresponding proportions of bog earth or bog extract in the liquid phase.

In contrast, it is entirely unexpected that the substances claimed in the present application, in particular a combination thereof, which can be obtained from peat, are retroviruses, such as e.g. Completely destroy HIV, HepB viruses and plasmodia and at least reduce the spread of cancerous growths in the case of cancer. In vitro tests have shown that with the completely non-toxic and 100% cell-available pharmaceutical preparations according to the invention, 100% destruction of HIV and plasmodia

can be achieved. In addition, there are also in-vitro test results and indications of the effectiveness of the active substances according to the invention in combating other retroviruses and Hep B viruses, in the treatment of systemic opportunistic infections in full screen AIDS, and for the inhibitory action in tumor lines.

It should be emphasized that through the first use of such active substances in a therapeutic preparation for the therapy of the diseases listed in Results in human medicine with few side effects can be achieved, which are superior to the best therapeutic agents known to date in this field. Also to be noted is the special synergistic effect of the substances extractable from peat, the processes according to the invention ensuring their extensive conversion into pharmaceutically active substances.

Further features and advantages of the invention result from the following description, in which exemplary embodiments are explained in detail.

Example 1:

For the production of a pharmaceutical preparation according to the invention, freshly bog peat was used. It should be noted that, with comparable results, other types of peat, especially those from transitional bog and peat bog, were used.

The peat material was first disintegrated and, if necessary, coarse components were removed using a vibrating screen. After optional sterilization by gamma radiation using cobalt 60 at a dose of 10-50 kGy, vacuum drying was carried out at below 80 ° C. to a residual moisture of at least 20-25%.

The material so obtained was swollen with water with constant stirring for 24-72 hours. Steam distillation was then carried out, collecting and storing the distillate. Tests with this distillate already showed a remarkable physiological effectiveness (about 50% of the effect of the final preparation).

The residue from the steam distillation was then subjected to basic digestion, solid NaOH being added in an amount of 10-25% by weight, based on the residue and water content, with a final moisture content of 80-90%. Of course, other basic materials such as KOH and the like can also be used for the basic digestion.

The slurry produced was brought to the boil with constant stirring, left to boil for at least 5 but not more than 100 min and then made up to 1.5-5.0 times its volume with hot water and autoclaved, preferably at a pressure of 2.5 bar at 150 ° C. After cooling, the supernatant liquid is separated off and centrifuged at 8-10 rpm for 40 minutes.

The process was repeated again with the liquid being separated off again.

The supernatant liquid from the centrifugation (s) is washed with acid, e.g. HCl, neutralized. The salt formed, e.g. NaCl is preferably removed by dialysis.

Then the distillate from the

Steam distillation was added to the solution and adjusted to pH 6-7. Then physiological saline is added and the entire mixture is sterilized and finally ampouled. The pharmaceutical preparation thus produced is easily injectable. A preparation produced without upstream steam distillation, ie by alkaline digestion of the disintegrated starting material and subsequent steps, showed an efficacy of 70-80% of the final preparation in the tests described below.

Example 2:

The peat material was first worked up in accordance with the steps given in Example 1. After centrifugation (s), the supernatant liquid was also acidified, e.g. HCl, neutralized and then centrifuged again. The sediment from the centrifugation was washed several times with distilled water, centrifuged again and adjusted to a pH of 6-7. The material was dried in a freeze dryer, then sterilized and finally tabletted into dragees that can be administered orally or processed into a correspondingly externally applicable preparation.

Toxicity and tolerance

Although not singular but multifactorial effects are to be expected after administration, the acids mentioned in the claims should be considered as potentially effective ingredients.

These natural organic acids have several important properties.

When administered orally to experimental animals, there are no sensitizations in the form of allergic reactions, resistance, toxic side effects in organ systems and Residues in the tissues.

The acute LD50 i.p. in rats is 255.0 mg / kg.

The prenatal-toxic studies on laboratory rats show that under the influence of these acids there were no macroscopically visible malformations, retardations and no carcinogenic, embryotoxic and teratogenic damage.

The investigated preparation has a high level of oral tolerance, and the oral application at a prophylactic and therapeutic level can be assessed as safe in this regard.

The pharmacodynamic functions of these acids result from their chemical, biochemical, toxicological and metabolic-physiological properties.

After oral intake in the gastrointestinal tract, these acids have an anti-inflammatory and protective effect.

The preparation has a virucidal, antibacterial and throphic effect. It is odorless and tasteless, contains no disturbing particles and dissolves completely in the water after stirring.

Its oral application is rated as very good compared to other drugs.

The animals ingested the mixed drinks in a prophylactic and therapeutic dose after a short period of familiarization without complications. In this way, the required amount of medication was completely problem-free in an application form that was easy to dose and free of stress factors in the gastrointestinal tract of the animals.

HIV effectiveness test:

The efficacy tests of the preparations prepared according to Examples 1 and 2 were carried out in the Institute for Molecular Biological Diagnostics (DIAGEN, D-4010 Hilden, Max-Vollmer-Strasse 4) in in-vitro test systems specially developed for testing the efficacy of HIV.

The toxicity test was carried out according to the known methodology: the substances were co-cultivated in final concentrations of 1: 100, 1: 1,000, 1: 10,000 and 1: 100,000 with non-infected lymphocytes. After four days, the proliferative activity of the cells was quantified in the MTT test. The results listed below relate to the proliferation activity of untreated control cells.

For the viability test, lymphocytes were infected with HIV and also cultured for four days in the presence of the substances. The viability of the cells was examined using the trypan blue exclusion test; the percentage of living cells was determined.

The preparations from Examples 1 and 2 were then tested in a final dilution of 1: 100 for potential anti-HIV activity. For this purpose, human lymphocytes were infected de HIV with HIV and cultured for 4 days in the presence of the substances. After 2, 3 and 4 days, the synthetic HIV core protein p24 was measured in culture supernatants by means of ELISA. The amount of p24 synthesized in the cultures examined was determined with the help of a calibration curve, which was created with calibrated recombinant p24. Cultures which did not contain any test substance were again carried out as controls. Here too, the synthetic amount of p24 per ml of culture volume was calculated.

A percentage inhibition (% inhibition) of HIV replication was calculated as follows:

$$\% \text{ Inhibition} = 100 - \left[\frac{(\text{ng p24/ml in Kulturen mit Testsubstanz})}{(\text{ng p24/ml in Kontroll-Kulturen})} * 100 \right]$$

An antiviral infection on a scale of 0 to 9 was calculated from the percentage inhibition. A substance-induced inhibition between 0 and 10% was assigned the antiviral effect 0, an inhibition between 10 and 20% the antiviral effect 1, an inhibition between 20 and 30% the antiviral effect 2, etc..

AZT was tested as a reference substance in a dose-response curve from 100 mg / ml to 0.1 mg / ml.

The results of the tests are shown in the attached Tables 1 to 3, the preparations designated K763 and K764 according to Example 1 and the preparation designated K765 according to Example 2 being produced. Inhibition of protein-based HIV reolication

Day 2 Day 3 Day 4

K763 (ng p24 / ml) 0.0 0.0 5.9

Control (ng p24 / ml) 0.0 97.3 129.7

Inhibition% 100.0 95.5

Antiviral

Effect (0-9) 9 9

Date of test: January 7, 1993

Inhibition of protein-based HIV re-application

Day 2 Day 3 Day 4

K764 (ng p24 / ml) 0.0 0.0 8.8

Control (ng p24 / ml) 0.0 97.3 129.7

Inhibition% 100.0 93.2

Antiviral effect (0-9) 9 9

Date of test: January 7, 1993 Inhibition of HIV re-application on a per one basis

Day 2 Day 3 Day 4

K765 (ng p24 / ml) 0.0 2.4 0.0

Control (ng p24 / ml) 0.0 97.3 129.7

Inhibition% 97.5 100.0

Antiviral

Effect (0-9) 9 9

Date of test: January 7, 1993

The investigations show that the substances produced by the process according to the invention have an excellent effect in eliminating HIV in vitro. It is believed that these extremely astonishing results are due to a synergistic effect of the substances extracted from the peat. However, there are indications that some of the active substances contained in the peat, as set out in claim 1 and which can also be synthesized or obtained from other sources, show similarly good results.

Efficacy test plasmodia (malaria ^

The antiparasitic effect was checked in vitro on erythrocytic cell cultures which were infected with Plasmodia falciparum. Two test series were carried out, in which solutions were used in a dilution of 1:70. All solutions inhibited the intraerythrocytic development of the malaria parasite. The inhibitory effect was microscopic detectable in all three stages of development of the plasmodia. After 3 days there were no more mature parasite forms in the mixture. Cultures were analyzed at 8 hour intervals over 8 days. There was a change of media every three days; the medium newly added after the first three days no longer contained any active substance.

It can be concluded that the solutions prepared by the process according to the invention have a strong anti-parasitic effect.

Efficacy test for cancer

The following examinations were carried out at the Rudolf Virchow University Hospital of the Free University of Berlin.

A) K 562 cells and b) NHL-87 cells were cultivated. Iscove's modified Dulbecco medium with the addition of 10% (v / v) fetal calf serum was used. Incubation was for 120 hours. 1% (v / v) of the material used, referred to as “3”, “16” and “22”, were used as test substances.

The designated materials were partially sterilized by filtration (low protein binding filter, 0.22 µm) before testing.

Fungal or bacterial contamination did not occur. The measurements are averages of triple measurements. The line count and the expression of the transferrin receptor were analyzed. A. CELL NUMBER

1. K562 NHL

Number of cells (x 10 " / ml) at the start of culture 6.5 1.1

tl20h / control 29. 6.0 + "3" 24. 5.0 + "16" 27. 6.0 + "22" 28. 5.0

B. TRANSFERRIN RECEPTOR

The analysis was carried out using "live gating" with propidium iodide exclusively with regard to vital cells. In the cultures with the material according to the invention, reduced percentages of CD71-positive cells were found in both cell lines.

The substances according to the invention were tested for cytotoxic activity on two permanent cell lines. They showed a clearly inhibitory effect in the test systems.

There are first in vitro results on the effectiveness of the preparation also in hepatitis B infections and systemic opportunistic infections in full screen AIDS. For explanation it should be mentioned that under systemic opportunistic infections usually infections caused by the pathogens Mycobacterium tuberculosis (and atypical mycobacteria), salmonellae, Toxoplasma gondii, Cryptosporidium, Isospora belli, Strongyloides, Pneumocystis carinii, Candida, Cryptococcus-neofustomomiepergillus, as , Herpex simplex Virus, Papova virus and Varicella zoster virus can be understood.

These properties have a particularly favorable effect when prophylaxis or treatment of systemic opportunistic infections is carried out in patients with AIDS who already receive the preparation because of its antiviral effect. It has surprising effects in all pathological processes where previously known medical methods have shown little success.

The features of the invention disclosed in the above description and in the claims can be essential both individually and in any combination for realizing the invention in its various embodiments.

Patent Citations (5)

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DE2846482A1 *	1977-10-25	1979-04-26	Akad Wroclawiu Rolnicza	A PROCESS FOR THE OBTAINING A PREPARATION COUNTERACTING NEOPLASMS FROM ACIDIFIED, ALKALINE HYDROLYSATE FROM PEAT
WO1990004968A1 *	1988-10-31	1990-05-17	University Of North Carolina At Chapel Hill	Inhibition of human retroviruses
EP0374888A2 *	1988-12-20	1990-06-27	Yamanouchi Pharmaceutical Co. Ltd.	Sulfated tannins and theirs salts
WO1992016600A1 *	1991-03-16	1992-10-01	Torf Establishment	Process for the extraction of peat and apparatus for carrying out the process
Family To Family Citations				

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J. NAT. PROD., Bd.54, Nr.1, 1991 Seiten 143 - 154 G.T. TAN ET AL 'Evaluation of natural products as inhibitors of human immunodeficiency virus type-1(HIV-1) reverse transcriptase.' *
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RU2543319C2 *	2009-04-10	2015-02-27	КЕТТАНИ Слимен ЭЛЬ	Herbal composition for treating and preventing viral blood disorders, such as diseases caused by human immunodeficiency virus (hiv) or hepatitis c
Family To Family Citations				

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DE3111056A1	1982-02-11	METHOD FOR OBTAINING A MEDICINAL EFFECTING ARTHRITIS AND OTHER DISEASES OF THE OSTEOLOCOMOTORIC SYSTEM
EP0595297B1	2001-07-18	Lignin polymer composition for the treatment of skin problems
DE60316681T2	2008-07-17	Vapor fraction of Glycine max (L.) merr. Seeds and corresponding composition
WO2006029605A1	2006-03-23	Method and active ingredient for combating plasmodia
DE3225597A1	1983-02-03	METHOD FOR PRODUCING A TISSUE PREPARATION
WO1991008750A1	1991-06-27	Use of parts of the natural plant tinospora
DE3123830A1	1982-02-11	"ANTIVIRUS SUBSTANCE AND METHOD FOR THE PRODUCTION THEREOF"
DE60023585T2	2006-08-03	Preparation of a medicament containing catechol- or flavonylic-like polyphenol compounds from plants, in particular for the treatment of gingivitis
CH690816A5	2001-01-31	Using a partial or Vollextrates from unfermented Camellia sinensis L. for the manufacture of a medicament, a medical product, a cosmetic product or a dietary supplement product.
CH671516A5	1989-09-15	

Priority And Related Applications

Priority Applications (2)

Application	Priority date	Filing date	Title
DE4490853T	1993-02-26	1994-02-17	Treatment of (retro) viral diseases and method for producing a pharmaceutical preparation
AU60374/94A	1993-02-26	1994-02-17	Use of active substances in the therapy of certain diseases, process for preparing a pharmaceutical composition for that purpose and pharmaceutical compositions thus prepared

Applications Claiming Priority (4)

Application	Filing date	Title
DE4305926	1993-02-26	
DEP4305926.0	1993-02-26	
DE4316347A	1993-05-15	Process for the preparation of a pharmaceutical preparation and use thereof for the treatment of certain diseases
DEP4316347.5	1993-05-15	

Legal Events

Date	Code	Title	Description
1994-09-01	AK	Designated states	**Kind code of ref document**: A2 **Designated state(s)**: AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB HU JP KP KR KZ LK LU LV MG MN MW NL NO NZ PL PT RO RU SD

			SE SK UA US UZ VN
1994-09-01	AL	Designated countries for regional patents	**Kind code of ref document**: A2 **Designated state(s)**: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
1994-11-10	AK	Designated states	**Kind code of ref document**: A3 **Designated state(s)**: AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB HU JP KP KR KZ LK LU LV MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US UZ VN
1994-11-10	AL	Designated countries for regional patents	**Kind code of ref document**: A3 **Designated state(s)**: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
1994-11-30	121	Ep: the epo has been informed by wipo that ep was designated in this application	
1995-01-05	DFPE	Request for preliminary examination filed prior to expiration of 19th month from priority date (pct application filed before 20040101)	
1996-06-27	REF	Corresponds to	**Ref document number**: 4490853 **Country of ref document**: DE **Date of ref document**: 19960627
1996-06-27	WWE	Wipo information: entry into national phase	**Ref document number**: 4490853 **Country of ref document**: DE
1996-10-02	122	Ep: pct application non-entry in european phase	
1996-10-26	NENP	Non-entry into the national phase	**Ref country code**: CA

Concepts

machine-extracted

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Name	Image	Sections	Count	Query match
substance		title,claims,abstract,description	56	0.000
disease		title,claims,abstract,description	17	0.000
manufacturing process		title,claims,description	8	0.000
therapeutic procedure		title,abstract,description	4	0.000
pharmaceutical composition		title,description	3	0.000
mixture		claims,abstract,description	18	0.000
sodium chloride		claims,abstract,description	13	0.000

Acquired immunodeficiency syndrome	claims,abstract,description	12	0.000
salts	claims,abstract,description	12	0.000
Opportunistic Infections	claims,abstract,description	10	0.000
acid	claims,abstract,description	9	0.000
malaria	claims,abstract,description	9	0.000
tannin	claims,abstract,description	8	0.000
tannin	claims,abstract,description	8	0.000
tannin	claims,abstract,description	8	0.000
Ellagic acid	claims,abstract,description	6	0.000
Gallic acid	claims,abstract,description	6	0.000
Hepatitis B	claims,abstract,description	6	0.000
Asymptomatic HIV infection	claims,abstract,description	5	0.000
catechin	claims,abstract,description	5	0.000
catechin	claims,abstract,description	5	0.000
extract	claims,abstract,description	5	0.000
humic acid	claims,abstract,description	5	0.000
compounds	claims,abstract,description	4	0.000
Ellagic Acid	claims,abstract,description	3	0.000
Ellagic acid	claims,abstract,description	3	0.000
Gallic acid	claims,abstract,description	3	0.000
Protein Precursors	claims,abstract,description	3	0.000
Protein Precursors	claims,abstract,description	3	0.000
catechin	claims,abstract,description	3	0.000
ellagic acid	claims,abstract,description	3	0.000
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gallic acid	claims,abstract,description	3	0.000
humines	claims,abstract,description	3	0.000
precursor	claims,abstract,description	3	0.000
peat	claims,description	50	0.000
liquid	claims,description	30	0.000
material	claims,description	27	0.000
supernatant	claims,description	26	0.000
preparation method	claims,description	25	0.000
steam distillation	claims,description	21	0.000
drug	claims,description	18	0.000
centrifugation	claims,description	17	0.000
pharmaceutical preparation	claims,description	17	0.000
digestion	claims,description	16	0.000
water	claims,description	15	0.000
active ingredient	claims,description	13	0.000
method	claims,description	11	0.000

sodium hydroxide	claims,description	9	0.000
HCl	claims,description	8	0.000
cancer	claims,description	8	0.000
drugs	claims,description	8	0.000
cooling	claims,description	7	0.000
solid	claims,description	7	0.000
hydrogen chloride	claims,description	6	0.000
reaction mixture	claims,description	6	0.000
sludge	claims,description	6	0.000
charge neutralization	claims,description	4	0.000
drying	claims,description	4	0.000
neutralization	claims,description	4	0.000
neutralization reaction	claims,description	4	0.000
slurry	claims,description	4	0.000
carbon	claims,description	3	0.000
coal	claims,description	3	0.000
dialysis	claims,description	3	0.000
distilled water	claims,description	3	0.000
Bile	claims,description	2	0.000
chloride anion	claims,description	2	0.000
humus	claims,description	2	0.000
lignite	claims,description	2	0.000
natural product	claims,description	2	0.000
sewage sludge	claims,description	2	0.000
extraction	claims	1	0.000
natural products	claims	1	0.000
product	claims	1	0.000
topical	claims	1	0.000
unidentified retrovirus	abstract,description	4	0.000

Show all concepts from the description section

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