❖GAYPOZ IRELAND❖

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AIDS GLOSSARY

GLOSSARY INCLUDES

OPPORTUNISTIC INFECTIONS

MEDICAL TERMS

HIV DRUGS

MEDICAL TESTS

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GPI CONNECTS WITH OVER 600 HIV POSITIVE PEOPLE WORLDWIDE IN CANADA, U.S.A., AUSTRALIA, IRELAND, ENGLAND, FRANCE, HOLLAND.....

CONTRIBUTING PUBLICATIONS

AIDS TREATMENT DATA NETWORK, GMHC AIDS MEDICAL GLOSSARY, OXFORD MEDICAL DICTIONARY, AIDS TREATMENT UPDATE, NAM TREATMENT DIRECTORY, AIDS TREATMENT NEWS, OXFORD HANDBOOK OF CLINICAL MEDICINE, BRITISH NATIONAL FORMULARY, MONTHLY INDEX OF MEDICAL SPECIALTIES, AmFAR HIV/AIDS TREATMENT DIRECTORY.

ALL LISTINGS ARE IN STRICT ALPHABETICAL ORDER. FOR EXAMPLE 3TC APPEARS AT THE LOCATION WHERE AN ENTRY BEGINNING 'TT' WOULD APPEAR.

A

acidophilus: Bacteria found in yoghurt that help restore a supportive bacterial environment to an intestinal tract affected by disease and antibiotics. Acidophilus capsules may help in the prevention of candidiasis.

acupuncture: Therapy in which needles are applied to meridians (set points of the body). The precise disorder treated or the degree of anesthesia required determines the temperature of the needle used, the angle of insertion, the speed of insertion and withdrawal.

acyclovir: (Zovirax) an antiviral drug used in the treatment of herpes simplex virus 1 (cold sores), herpes simplex virus 2 (genital herpes) and herpes zoster (shingles). Acyclovir comes as tablets or cream. Acyclovir causes few side effects - occasionally nausea, diarrhoea or headaches.

acute: Rapid in onset; severe, life-threatening. The opposite of persistent, chronic, or long-term.

adjuvant: Any substance which enhances the immune-stimulating properties of an antigen or the pharmacological effect of a drug.

administration: This term refers to how a drug is taken.

adverse reaction (side effect): Participants in clinical trials may have reactions to the experimental medicines. Toxic reactions are usually listed in the protocol and the participant's Informed Consent. However, some reactions may never have been reported before. A clinical trial can be stopped because of an adverse reaction. Approved drugs can also have side effects. All side effects that may be caused by an approved drug are listed on the labeling.

aerosolized: A form of administration in which a drug, such as pentamidine, is turned into a fine spray or mist by a nebulizer. The drug is then inhaled.

AIDS(acquired immunodeficiency syndrome): The late stage of a disease caused by infection with the virus called HIV. There is a difference between being HIV-positive (HIV+) and having AIDS.

alkaline phosphatase (alk phos): An enzyme measurement that indicates the health of the liver.

aloe vera: A succulent plant whose juice has been used by HIV positive people. Acemannan the potentially active ingredient has direct activity against HIV.

allergy: An immediate or delayed immune reaction caused by a substance such as dust, a drug, or other foreign material that causes an allergic reaction

ALT (alanine aminotransaminase): a liver enzyme that plays a role in protein metabolism. Elevated levels of ALT are a sign of liver damage from disease or drugs.

amino acid: Any of the twenty nitrogen containing acids that are the building blocks for proteins and required for human growth.

amoebiasis: Infection caused by a tiny animal parasite which lives in the human large intestine.

amphoteracin B: An antifungal drug which is given intravenously for the treatment of cryptococcal meningitis, coccidiomycosis and other fungal infections. A liposomal form of the drug (AmBisome) is currently in trial.

ampicillin: A form of penicillin, used in the treatment of urinary tract infections, ear infections, bronchitis etc.

amylase: A class of enzymes (proteins). Amylase it is secreted by salivary glands and the pancreas to aid digestion of food. An increase in amylase levels may indicate pancreatitis.

anabolic steroid: Naturally occurring hormones that help convert protein into muscle. Testosterone is an anabolic steroid. May be useful in treating wasting associated with AIDS.

anaemia: A condition which occurs if the blood cannot carry enough oxygen to nourish tissues. Common symptoms of anaemia are fatigue, headache, and shortness of breath. Anaemia may be caused by too few red blood cells or too little haemoglobin or both.

analgesic: Agent that reduces pain without reducing consciousness. Aspirin is an analgesic.

analogue: A chemical compound with a structure similar to that of another but differing from it in respect to a certain component; it may have a similar or opposite action metabolically.

anorexia: Prolonged loss of appetite that leads to significant weight loss.

antagonist: A drug that prevents or reverses the action of another drug.

antibacterial: A substance which stops or checks the growth of bacteria.

antibiotic: A substance, especially one similar to those produced by certain fungi for destroying bacteria, that kills or inhibits the growth of microorganisms. An antibiotic is used to combat disease and infection.

antibodies: Proteins in the blood which recognize and block foreign substances.

anticoagulant: A substance that delays or counteracts blood clotting.

antifungal: A substance which kills or inhibits the growth of a fungus.

antigen: A substance which, when introduced into the body, is capable of starting the production of a specific antibody.

anti-inflammatory: A substance which counteracts or suppresses inflammation. Swelling and redness are types of inflammation. There are two types of anti- inflammatory drugs: steroids, such as cortisone, and non-steroidal agents, such as aspirin.

antioxidant: Substances that may prevent free radicals from causing damage. Molecules in the body that are oxidized can cause cell damage. Examples of antioxidants are vitamins A, C and E.

antiretroviral: A substance that stops or suppresses the activity of a retrovirus such as HIV. AZT, ddC and ddI are examples of antiretroviral drugs.

antisense drug: a synthetic segment of DNA or RNA that locks onto a strand of DNA or RNA with a complementary sequence of bases. These drugs are designed to block viral genetic instructions.

antiviral: A type of substance or process which destroys a virus or suppresses its pathogenic action.

apoptosis: A type of cellular suicide triggered by stimulation of particular receptors on a cell's surface. This process eliminates unwanted cells. Some researchers believe that accidental apoptosis may be the way that CD4 cells become depleted in HIV infection, rather than through direct killing by HIV.

ARC (AIDS Related Complex): HIV positive with symptoms. Usually called HIV disease.

AR-177: An integrase inhibitor, at present in development.

aspergillosis: A disease caused by a fungus. It can cause lesions of the skin, ear, orbit, nasal sinuses, lungs and sometimes the bones, meninges, heart, kidneys or spleen. Symptoms include fever, chills, difficulty breathing, and coughing up blood. If the infection reaches the brain, it may cause dementia.

assay: A test

AST (aspartate transaminase) : A liver enzyme that plays a role in protein metabolism, like ALT. Elevated AST levels are a sign of liver damage from disease or drugs. AST is also known as SGOT.

asymptomatic: Infection without symptoms. Someone who is asymptomatic has antibodies to HIV but does not have any visible signs or symptoms of HIV infection.

ataxia: Loss of muscle control leading to jerky or uncoordinated movements.

atrophy: A wasting or decrease in size.

attenuated virus: A weakened virus whose ability to infect or produce disease is potentially reduced.

autoantibodies: Antibodies that mistakenly attack host cells.

autoimmune disease: A disease which arises from and is directed against an individual's own tissues.

azithromycin (Zithromax): An antibiotic used for the treatment of bacterial infections of the skin and respiratory tract. It also shows activity against MAC, toxoplasmosis and cryptosporidiosis.

AZT (Retrovir, Zidovudine): A nucleoside analogue drug that helps to slow the replication of HIV. AZT is used in combination with other nucleoside analogue drugs e.e.g. 3TC, d4T, and/or protease inhibitors. AZT side effects include bone marrow suppression leading to anaemia, muscle weakness and headaches.

B

B-lymphocytes (B-cells): One of the immune system cell types; B cells fight infection primarily by making antibodies. During infections, these cells are transformed into factories that make thousands of antibodies against a foreign substance. This transformation occurs through

interactions with various types of T-cells and other components of the immune system.

bacteria: A group of microscopic organisms that cause disease when they infect someone.

baseline: The first or starting measurement in a study. New measurements of blood values are compared to this starting value.

Beta Carotene: A compound that is converted to Vitamin A in the body. Beta Carotene is found in dark green and yellow fruits and vegetables. It is believed to be valuable in preventing HIV disease progression.

bDNA: See branched DNA assay.

bilirubin: A reddish yellow pigment occurring in bile, blood, urine and gallstones. An elevated level is a fair indicator that something is wrong with the liver, pancreas, or bile ducts. The eyes often become yellow in color. Indicates the health status of the liver.

bioavailability: The rate and extent to which a substance is absorbed and circulated in the body.

biopsy: Removal and laboratory examination of tissue from the living body. In some cases a tiny piece of skin is cut off and examined. Other types of biopsy can be more serious, such as a brain biopsy, which is done very rarely. A biopsy is usually done to clearly determine the cause of an illness.

biter melon: A plant from which Compound Q is derived.

blastomycosis: An infectious disease caused by a fungus, usually in the lungs. It can spread to the skin, bone or other tissues.

blood brain barrier: A barrier between brain blood vessels and brain tissues. This barrier controls what goes into the brain. Some drugs cannot cross this barrier, making brain infections difficult to treat.

bone marrow: Soft tissue located inside bones. This is where blood cells are formed. A bone marrow biopsy involves inserting a long needle into the center of a bone to remove a sample to see if an infection is growing in the bone marrow.

bone marrow suppression: A condition that can be caused by certain drugs. It leads to a decrease in white blood cells, red blood cells, and platelets. This can lead to bleeding or infections. People taking medications known to cause bone marrow suppression should have frequent blood tests.

branched DNA assay (bDNA): One of several new research tests that measure HIV viral load. The test uses a light- detecting system to find HIV RNA in virus particles in a blood sample. The intensity of light generated by the captured particles is proportional to the amount of HIV RNA present. The test is made by Chiron Corp. of Emeryville, Calif.

bronchoscopy: Insertion of a thin flexible tube into the lungs through the nose or mouth. Often used as a diagnostic tool for PCP.

buffered: Coated with a special substance which allows easier absorption by the stomach. Buffered drugs often prevent stomach upset. They may also help to avoid damage by stomach acids.

Burkitt's lymphoma: A malignant cancer of the lymphatic system. Epstein-Barr virus has been isolated from Burkitt's lymphoma and is suspected as a causative agent.

C

cachexia: General ill health and malnutrition. A general weight loss and wasting occurring in the course of a chronic disease or emotional disturbance.

cancer: A large group of diseases characterized by uncontrolled growth and spread of abnormal cells.

candidiasis: A fungal infection, often seen as white patches in the mouth called thrush. Can cause vaginal candidiasis and disease in other parts of the body.

catheter: A device that allows drugs to be given on an ongoing basis. A catheter is put in the chest during a minor operation.

CD8 (T8): A protein embedded in the cell surface of suppressor T-lymphocytes.

CD4: The protein structure on the surface of a human cell that allows HIV to attach, enter and thus infect the cell. CD4 receptors are found on the surface of CD4 cells (T helper cells), macrophages and dendritic cells, among others.

CD4 count: The most commonly used marker to access the state of the immune system's health. The normal range is between 600 to 1400 per cubic millimeter of blood.

CD4/CD8 ratio: The ratio of CD4 to CD8 cells. A

common measure of immune status that is around two in healthy individuals.

CDC: The Centers for Disease Control and Prevention. A federal health agency that is a branch of the Public Health Service in the United States.

cell: The smallest independent unit of an organism. A cell is composed of cytoplasm and a nucleus, and is surrounded by a membrane or wall.

central nervous system (CNS): The brain and spinal cord with their nerves and end organs that control voluntary acts.

cerebrospinal fluid (CSF): Fluid that bathes the brain and spinal cord. A sample of this fluid is often removed from the body for diagnostic purposes by a lumbar puncture.

cervical dysplasia: Abnormal tissue development of the lower part of the uterus; may progress to cancer of the uterus.

chemotherapy: The use of chemical agents in the treatment of a disease.

chlamydia: A bacterial infection that can cause disease. Left untreated it can lead to cancer. chronic: Continuous or ongoing.

CHOP/COMP; Combination chemotherapies used in the treatment of several cancers including lymphoma.

cidofovir: An antiviral drug with broad spectrum anti-herpes activity. It is being studied for CMV treatment.

clarithromycin (Klacid): an antibiotic used for the treatment of MAC and also for prevention treatment.

CMV retinitis: A herpes infection in the eye which can cause blindness. It is common in people with AIDS. People with CMV retinitis must take treatment for the rest of their life.

coenzyme Q10 (CoQ10): a substance that assists in the oxidation of nutrients within cells to create energy. It helps to protect cell membranes and may have a role in combating AIDS related conditions.

co-factor: Something that may also affect a disease. Hemophiliacs who have both herpes and HIV progress to AIDS faster than do hemophiliacs who do not have herpes. The herpes is said to be a co-factor on the progression to AIDS.

colitis: Inflammation of the colon, part of the intestines.

combination therapy: The use of two or more drugs as treatment. Also, the use of two or more types of treatment in combination, alternately or together.

comparison trial: A trial in which experimental drugs are tested against each other or against an approved drug.

compassionate use : People who are seriously ill can have their doctor ask the drug company to give them an experimental drug they think will help them. Few drugs are available through this program, but they are usually free.

complete blood count (CBC): Series of tests including cell counts, haematocrit, hemoglobin, and cell volume measurement.

continuous infusion: Uninterrupted introduction of fluid other than blood into a vein.

controlled trials: Trials in which one group gets the experimental drug and another group gets either a placebo or an approved drug therapy. Participants usually do not know which group they are in.

co-trimoxazole: See Septrin.

creatinine: A protein found in muscles and blood and excreted by the kidneys in the urine. The level of creatinine in the blood and urine provides a measure of kidney function.

crossover: A controlled drug trial in which, halfway through the study, the groups in the trial switch. That is, those taking the experimental drug are given the standard drug and vice versa.

cross-resistance: The phenomenon in which a microbe that has acquired a resistance to one drug through direct exposure also turns out to have resistance to one or more drugs to which it has not been exposed. Cross resistance arises because of identical genetic mutations which occur.

cryptococcal meningitis: A fungal infection of the brain and spinal cord. Symptoms include severe headache, dizziness, nausea, weight loss, vision disorders and mental deterioration. Meningitis with headache, blurred vision, confusion, dizziness, nausea, anorexia, depression, agitation or slurred speech are common symptoms.

cryptosporidiosis: An infection whose main symptom is prolonged diarrhoea which leads to weight loss. All treatments for this illness are still experimental.

ct scan (computerised tomography): a form of x-ray exam that uses a special beam to produce a detailed series of images of body sections. This is also referred to as a CAT scan.

cytokines: Proteins produced by white blood cells that act as chemical messengers between cells. CD8 (T-suppressor) cells release a cytokine that appears to block HIV replication in infected cells, at least until the advanced stage of HIV disease.

cytomegalovirus: A virus related to the herpes family, CMV infections may occur without any symptoms or may result in mild flu-like symptoms of aching, fever, mild sore throat, weakness or enlarged lymph nodes. In AIDS, severe CMV infections can cause illnesses such as hepatitis, pneumonia, retinitis and colitis, leading in some cases to blindness, chronic diarrhea, and death.

cytotoxic: Term used to describe something which damages cells. Also used as the name of a type of T-cell.

cytotoxic T lymphocyte (CTL): A lymphocyte that is able to kill foreign cells that have been marked for destruction by the immune system.

D

dapsone: A drug used in the prophylaxis of PCP and other diseases. It is used for those people who are allergic to Septrin.

daunoXome: a chemotherapy used for Kaposi's Sarcoma. It consists of a preparation af daunorubicin encapsulated in liposomes.

ddC (HIVID): A nucleoside analogue that inhibits infection of new cells by HIV. It is used in combination with other antiretroviral drugs. Possible side effects include nerve damage in the hands and feet (peripheral neuropathy) and mouth sores.

delavirdine: a non-nucleoside reverse transcriptase inhibitor (NNRTI) drug. It is used in combination with AZT.

dementia: Loss of memory and other intellectual functioning caused by HIV or another disease.

dendritic cells: immune cells with long tentacle like branches called dendrites. These cells function as antigen presenting cells.

d4T (Zerit): an anti-HIV nucleoside analogue, used in combination with other anti-HIV drugs e.g. AZT, 3TC. Possible side effects include peripheral neuropathy.

DHEA: This is a pro-hormone. It is secreted by the adrenal gland. Levels have been found to be low in HIV infection. The full chemical name is dihydroepiandrosterone.

dose: The amount of a drug that is given at one time.

dose comparison: A trial that uses different amounts of the same drug. Sometimes the drug is tested against a placebo.

dose escalation trial: In this type of trial, one or a few people, usually under a dozen, take a small amount of the drug. If it doesn't hurt them, one or a few more take a larger amount. This continues until the researchers find the largest amount of the drug that can be taken without immediate harm.

double-blind: A type of drug trial in which people are divided into different groups. One group takes the experimental drug and other groups take different doses, the standard therapy, or placebo. Neither the researchers nor the person in the trial knows who is taking what until the trial is over.

E

echinacea: A herb used for maintaining the immune system. It is considered to be an immune stimulator with anti-viral properties. It is available in tablet and liquid form.

ELISA (enzyme linked immunosorbent assay): The most common test used to detect the presence of HIV antibodies in blood, which are indicative of ongoing infection.

encephalitis: Inflammation of the brain. Symptoms include headache, neck pain, fever, nausea, and vomiting. Nervous system problems may occur such as laziness, paralysis, weakness, and coma. Treatment includes antibiotics for infection, steroids to reduce brain swelling, medicine to control fever and headache, and prolonged bed rest. Several types of opportunistic infections can cause encephalitis.

endocrine gland: A gland that manufactures one or more hormones.

enzyme: Protein chemical that can accelerate a chemical reaction in the body. eosinophil: A type of white blood cell, called a granulocyte, that can digest microorganisms.

eosinophil: A type of white blood cell (granulocyte) thought to plat a role in fighting parasites producing

allergic reactions.

eosinophillic folliculitis: An inflammatory reaction around hair follicles, with very itchy papules that may grow together to form plaques, Partially successful treatment with U.V. light, steroids, antihistamines and itraconazole.

epoetin: A naturally occurring glycoprotein that stimulates erythrocyte production. It is used in the treatment of drug related anaemia, including that caused by AZT.

Epstein-Barr virus (EBV): A herpes-like virus that causes one of the two kinds of mononucleosis (the other is caused by CMV).

erythrocytes: Red blood cells whose primary function is to carry oxygen to cells.

ethambutol: An approved anti-mycobacterial antibiotic used in combination for the treatment of tuberculosis of MAC.

expanded access: Programs designed to make experimental drugs available on a wide basis to people who do not qualify for the drug trials or who live too far from a trial site.

experimental drug: A drug that has not been approved for use as a treatment for a particular condition.

F

famciclovir (Famvir) : An anti-viral drug for the treatment of varicella zoster virus. It is well absorbed. It is under investigation for the treatment of HSV-2 infections.

floaters: Floating dark spots within the field of vision. They can be caused by CMV retinitis, but also appear in some persons as a normal part of the aging process. An HIV-knowledgeable eye doctor can make a correct diagnosis.

fluconazole (Diflucan): An antifungal drug for candidiasis and cryptococcal meningitis.

foscarnet(Foscavir): An anti-viral drug for the treatment of CMV infection. Also has activity against herpes virus.

fungus: A general term used to denote a class of microbes including mushrooms, yeast, and molds. Fungi cause infections such as thrush, cryptococcal meningitis, and toxoplasmosis.

G

gamma globulins: A type of immunoglobulin made by plasma cells, which is able to resist infection by viruses and bacteria. Simple proteins found in blood serums which contain various molecules central to immune system function.

gamma globulin (IgG): The portion of the plasma that contains antibodies.

ganciclovir (Cymevene): An antiviral drug to treat CMV retinitis and elsewhere in the body. It comes in both oral and intravenous forms. The oral formulation is being used in the prevention of CMV.

gastroenteritis: Inflammation of the lining of the stomach and intestines.

gastrointestinal (GI) tract: This includes the mouth, oesophagus, stomach, small and large intestines, colon and rectum.

G-CSF (Neupogen): Granulocyte colony stimulating factor. This is a natural hormone that stimulates the production of granulocytes (white blood cells).

glutathione: An amino acid used by the body as an antioxidant. It also aids in the neutralisation of toxins in the liver.

glycoprotein: One of a group of compounds consisting of a protein and a carbohydrate.

gp120: A piece of HIV that can cause damage to the immune system and other parts of the body. gp120 is the foundation for several of the new vaccines.

granulocytes: A cell type of the immune system filled with granules of toxic chemicals that enable them to digest microorganisms. Basophils, neutrophils, and eosonophils, are examples of granulocytes.

granulocytopenia: An abnormally low number of granulocytes in the circulating blood that can lead to increased risk of severe bacterial infection.

growth factors: A growth factor is responsible for regulating cell proliferation (rapid and repeated reproduction), function and differentiation. Different growth factors elicit different responses from different cell types, such as stimulating cell growth, enhancing cell survival, initiating cell migration and stimulating the

secretion of tissue-specific hormones.

H

haematocrit: The percentage of packed red blood cells in a given volume of blood. Normal ranges: women 37-43%, men 43-49%.

haemoglobin: The protein in red-blood cells responsible for carrying oxygen.

haemolysis: A destruction of the red blood cells.

haemophilia: An inherited disease that prevents the normal clotting of blood.

hairy leucoplakia: A whitish, slightly raised lesion that appears on the side of the cheeks, gums or tongue. Thought to be related to Epstein-Barr Virus infection. (OI)

helper cells: (T4, CD4) A subset of T cells that carry the T4 marker and are essential for turning on antibody production, activating cytotoxic T cells, and initiating other immune responses.

hepatitis A: A self limiting virus induced liver disease, usually acquired through ingesting contaminated food or through oral faecal contact (rimming).

hepatitis B (HBV): A viral liver disease that can be acute or chronic and even life- threatening, particularly in people with poor immune resistance.

hepatitis C: A viral liver disease. More prevalent in IDUs.

herpes simplex virus I (HSV I): A virus which causes cold sores or fever blisters on the mouth or around the eyes and can be transmitted to the genital region. The latent virus can be reactivated by stress, trauma, other infections or suppression of the immune system.

herpes simplex virus II (HSV II): A virus causing painful sores of the anus or genitals which may lie dormant in nerve tissue and can be reactivated to produce the symptoms. HSV II may be transmitted to a baby during birth.

herpes zoster: Herpes zoster, also called shingles, consists of very painful blisters on the skin that follow nerve pathways. Treatment with acyclovir is highly recommended.

Hickman catheter: A flexible, needle shaped tube which can be surgically placed in a large blood vessel and held in place for a long periods of time.

histamine: A hormone/chemical transmitter involved in local immune responses, in regulating stomach acid production and in allergic reactions.

histoplasmosis: A fungal infection that causes acute pneumonia, inflammation of the meninges, heart, peritoneum, adrenals, and all other organs of the body. Symptoms usually include fever, shortness of breath, cough, weight loss and physical exhaustion.

HIV: Human immunodefficiency virus, the retrovirus that induces AIDS.

HIV disease: A term used to describe a variety of symptoms and signs found in people who are HIV positive. These may include recurrent fevers, unexplained weight loss, swollen lymph nodes, and/or fungus infection of the mouth and throat. Also commonly described as symptomatic HIV infection.

Hodgkin's disease: A progressive malignant cancer of the lymphatic system. Symptoms include lymphadenopathy, wasting, weakness, fever, itching, night sweats and anemia. This disease is treated with radiation and chemotherapy; newer combinations of anticancer drugs are being tried constantly with increasing success.

hormone: A substance made by the body to influence a process. Testosterone, for example, is a hormone that makes people more aggressive and muscular. Most men have more of this hormone than women.

human growth hormone (HGH): A hormone secreted by the pituitary gland in the brain. HGH enhances tissue growth by stimulating protein formation. Genetically engineered HGH (rHGH) is under investigation for use in AIDS wasting.

human papillomavirus (HPV): The virus which causes warts. HPV has been associated with cervical cancer in women and anal cancer in men.

hydroxyurea: An anticancer drug. It is in trials for use against HIV in combination with ddI.

hypertension: High blood pressure.

hypericin: A herbal extract from St.John's Wort. It is considered to have anti-viral properties.

hypersensitivity: A situation in which the body reacts with an exaggerated immune response to drugs or other substances.

I

IDU: An injection or intravenous drug user (IVDU).

IL-2 (interleukin-2): A cytokine which gradually declines during HIV infection. Use of Il-2 therapy is under investigation to raise CD4 counts and restore immune function.

IL-12 (interleukin-12): A cytokine released by the macrophages. It is under study as an immunotherapeutic agent in HIV infection.

immune complex: A pair of immune system pieces. Immune complexes form when the immune system marks foreign objects so the body knows how to relate to them.

immune system: The body's complicated natural defense mechanism against invasion by microbes and cancers.

immunocompetent: Refers to an immune system capable of developing a normal protective response when confronted with invading microbes.

immunocompromised: Refers to an immune system in which the response to infections and tumours is subnormal.

immunity: A natural or acquired resistance to a specific disease. Immunity may be partial or complete; long lasting or temporary.

immunization: To protect against disease by vaccination, usually with a weak form of the agent that causes illness. People are usually immunized against a disease by getting vaccinated, although having a disease one time usually prevents or "immunizes" you from getting it again. This may not always be true with people who are HIV positive.

immunomodulators: Drugs hoped to strengthen the immune system and help the body fight off opportunistic infections or other diseases that attack people with AIDS. Not necessarily used to stimulate the immune system, which may be harmful. This includes two sub-groups: cytokines and "broad acting" immune modulators. Broad acting immune modulators are chemical transmitters/hormones in the body which regulate the immune system (i.e., endorphins), or act in a similar fashion.

imuthiol: An immune modulating drug.

inclusion/exclusion criteria: The medical or other reasons why a person may or may not be allowed to enter a trial. For example, some trials do not allow pregnant women to join, others do not allow people to take certain drugs, and others exclude people with certain illnesses. Other trials may try to include pregnant or nursing women.

indication: Purpose for which a drug is intended; e.g. Pentamidine is indicated for PCP.

indinavir: A protease inhibitor drug. It is used in combination therapy with other anti-HIV drugs and is proving very valuable. Possible side effects include GI problems and kidney stones.

inflammatory bowel disease (IBD): A disorder of the colon that causes stomach pain, constipation, and diarrhea.

informed consent: Type of protection available to people considering entering a drug trial. Before entering the trial participants must sign a consent form that contains an explanation of a) why the research is being done; b) what researchers want to accomplish; c) what will be done during the trial and for how long; d) what risks are in the trial; e) what benefits can be expected from the trial; f) other treatments available; and g) the right to leave the trial at any time.

infusion: The process of giving a substance (medication, food supplements, etc.) to an individual by injecting it into a vein. This procedure can either be a one-time event or continued over many hours, days or even months.

inhibitor: In medicine, refers to a drug or chemical or substance that inhibits or blocks something from happening.

integrase: The HIV enzyme that inserts HIV's genes into a cell's normal DNA. The integrase inhibitor AR-177 is under development.

interaction: Change in the body's response to one drug when another is taken. Interaction may increase the effect of one or both drugs, decrease the effect of one or both drugs, or cause toxicity.

interferon: A substance that is produced when the body senses an infection with a virus. Interferon is released to coat uninfected cells so that they don't become infected. There are three main classes of interferon alpha, beta, and gamma.

interleukin: A natural blood substance that helps immune system cells to communicate.

intestinal malabsorption: A condition in which the nutrients found in food are not absorbed by the body. It can lead to malnutrition and weight loss.

intralesional: Injected directly into a lesion.

intrathecal: Injected into the fluid surrounding the spinal cord.

intravenous (IV): Intravenous drugs are injected directly into the veins.

intravitreal: In the eye.

in vitro: (Latin for "in glass") An artificial environment created outside a living organism, e.g., a test tube or culture plate, used in experimental research to study a disease or process.

in vivo: (Latin for "in life") Studies conducted within a living organism, e.g., animal or human studies.

isoniazid: An approved antibiotic used in combination for tuberculosis.

-itis: A suffix that indicates inflammation.

itraconazole (Sporanox): Oral antifungal drug used for a number of AIDS related fungal infections.

J

jaundice: Yellow pigmentation of the skin and whites of the eyes caused by raised blood levels of bilirubin. This is associated with hepatitis.

K

Kaposi's sarcoma (KS): A cancer of the blood vessels that may occur in people with AIDS. Blood vessels which grow rapidly and cause pink to purple, painless spots on the skin. Kaposi's sarcoma (KS). Lesions may first appear on the feet or legs and on the soft palate of the mouth. They may also remain hidden in the internal organs. KS can also grow in other places such as the lungs. It can be accompanied by fever, enlarged lymph nodes and stomach problems.

Karnofsky score: A measurement system for how you perform everyday tasks. If you can eat and get dressed by yourself then you probably have a high Karnofsky score. It goes down as you need more help in doing things.

ketaconazole (Nizoral): An antifungal medication available in tablet and liquid form. Effective against a variety of fungal infections including thrush and cryptococcus.

killer T cells: A class of immune system cells that function to kill cancer and virus- infected cells; also called "Natural Killer" cells.

L

lactose intolerance: The inability to digest and absorb the milk sugar - lactose.

latency: The period when an organism is in the body, but is not producing any ill effects. HIV is never really latent, although you may not have symptoms or feel bad.

L-carnitine: A naturally cell constituent that modulates fat metabolism. It has been proposed for use in AIDS wasting and myopathy associated with AZT.

lesion: Any pathological or traumatic discontinuity of tissue, which may cause a loss of function (of the affected or surrounding tissue).

leucocytes: All white blood cells.

leucopenia: A lower than normal level of leukocytes in the blood.

liposome: Microscopic globules of lipid (fat) used as a delivery system for certain drugs.

liver function test (LFT): A blood test that measures the serum level of several enzymes produced by the liver. An elevated LFT is a sign of possible liver damage.

log (logarithm): The number of times ten must be multiplied by itself to equal a certain number. For example 10,000 is log 4. Logs are used to measure changes in viral load.

loviride: An NNRTI drug under trial.

lumbar puncture (LP): Insertion of a needle into the spinal cord to obtain a sample of the cerebrospinal fluid.

lymph glands: Small immune system centers that are located all over the body. Lymph glands trap protect the bloodstream from infection by filtering out infectious particles.

lymphadenopathy: Swollen, firm and possibly tender lymph glands. The cause may range from a temporary infection such as the flu, HIV, mononucleosis, to lymphoma (cancer of the lymph nodes).

lymphocytic interstitial pneumonia (LIP): A type of pneumonia that affects 35 to 40% of children with AIDS. Children with HIV who have LIP are diagnosed as having AIDS.

lymphoma: A cancer of the cells that are responsible for normal immune function. A type of cancer that may include symptoms such as lymph-node swelling, weight loss, and fever. The type of treatment depends on the appearance of the lymphoma under the microscope as well as the extent of the spread of the lymphoma. Treatment can involve either radiotherapy or chemotherapy, or a combination of both. In most cases of Hodgkin's disease and about 50 percent of non-Hodgkin's lymphoma, treatment can result in a cure.

M

MAC: See mycobacterium avium complex.

macrophage: A large immune system cell that roams through the blood looking for foreign matter. These cells also alert the rest of the immune system that help is needed.

magnetic resonance imaging (MRI): A non-invasive diagnostic technique that can provide information on the form and function of internal tissue and organs of the body.

maintenance therapy: Use of a treatment or treatments even after the disease has been brought under control. Unless maintenance therapy is used against PCP pneumonia, for example, the disease will probably occur again.

malabsorption syndrome: Decreased intestinal absorption resulting in loss of appetite, muscle pain and weight loss.

malignancy: A tumor or cancer. memory cells: T cells that have been exposed to specific antigens and are able thereafter to proliferate upon repeat exposure to the same antigens.

megestrol acetate (Megace): An appetite stimulant used in weight loss associated with AIDS. Megestrol is a synthetic version of the female hormone progesterone.

meningitis: Inflammation of the brain and spinal cord that is usually caused by bacteria or a virus.

metronidazole (Flagyl): An anti-microbial drug that is active against a wide range of bacteria and protozoa.

microbe: A microscopic living organism such as a bacteria, a fungus, protozoa or virus.

microsporidiosis: An infection of the gut caused by a parasite. The main symptom is diarrhea.

molluscum contagiosum: A skin disease caused by a virus which causes small rounded tumors. They are persistent but have no other general symptoms. (OI)

monoclonal antibodies: Custom made immune system pieces that are used against one specific disease causing agent.

monocyte: A large white blood cell that is the precursor of macrophages

monotherapy: Medical treatment consisting of a single drug administered alone.

MRI: See Magnetic Resonance Imaging.

multiple drug resistant tuberculosis (MDRTB): a strain of TB that does not respond to the standard anti-TB drugs.

myalgia: Pain in one or more muscles.

mycobacterium avium complex (MAC): A disease caused by an organism found in soil and dust particles. In PWAs, it can spread through the bloodstream to infect many parts of the body. Symptoms of MAC include prolonged wasting, fever, fatigue and enlarged spleen. It is usually found only in individuals who have T cells under 100. Though there is no cure, many different combinations of drugs are used to treat MAC. Also called MAI sometimes.

mycobacterium: A group of bacteria that can cause disease. (MAC, TB, leprosy).

mycosis: Any disease caused by a fungus.

myelopathy: Neurologic disorder. Symptoms can be weakness of limbs, partial paralysis, inability to control legs, frequent urination and inability to get erections.

myelosuppression: The suppression of bone marrow activity, which can cause anemia. Red blood cells, whose function is to transport oxygen to tissues and to remove their carbon dioxide waste, are constantly made in the bone marrow. A drug that damaged the bone marrow would cause loss of red blood cells.

myopathy: Progressive muscle weakness. This can arise as a toxic reaction to AZT or as a consequence of HIV infection.

N

NAC (N-acetylcysteine): A naturally occurring substance that is converted into the amino acid cysteine. Cysteine is one of the three major components of glutathione, and levels of this seem to be decreased in HIV infection.

nandrolone (Deca-Durabolin): An anabolic steroid can be useful in AIDS related wasting.

natural killer cells: (NK cells) Large immune system cells that attack and destroy infected and cancer causing cells. They are known as 'natural' killers because they attack without any help from the rest of the immune system.

nef: An HIV regulatory protein without which HIV appears to be less infectious.

nelfinavir: A protease inhibitor, which is showing a good cross resistance profile.

neoplasm: An abnormal and uncontrolled growth of tissue; a tumor.

neopterin: A substance produced by macrophages when they encounter a foreign substance such as a virus. Doctors sometimes measure neopterin to see whether the immune system is fighting HIV.

nephrotoxic: Poisonous to the kidneys.

nerve growth factor (NGF): A naturally produced substance that maintains nerves and nerve cells, especially sensory ones. A synthetic NGF is under trial for the treatment of HIV and drug associated neuropathy.

neuropathy: Any abnormal, degenerative or inflammatory state of the peripheral nervous system.

neutropenia: A low number of neutrophils in the blood. Neutrophils are a white blood cell important in defending the body against infections.

neutrophil: A white blood cell which plays a central role in the immune system. Neutrophils are the immune system's main defense against bacterial infections.

nevirapine: An NNRTI that has shown anti-HIV activity. Possible side effects include a severe rash and fever.

night sweats: Extreme sweating which happens during sleep. Night sweats are considered a symptom of HIV only when the body is drenched. Slight sweating is not a symptom.

NK cells: See natural killer cells.

NNRTI (non-nucleoside reverse transcriptase inhibitor): A class of drugs including delavirdine, nevirapine and loviride, that block the HIV enzyme reverse transcriptase. These drugs are in trial in combination with other anti-HIV drugs.

non-Hodgkin's lymphoma (NHL): A rare B-cell lymphoma that is seen in AIDS.

nucleoside: A building block of DNA and RNA, the genetic material found in living organisms.

nucleoside analogue: A type of antiviral drug, such as AZT, 3TC, ddI, ddC and d4T, whose structure makes up a defective version of a natural nucleoside.

nystatin: An antifungal drug used primarily as a topical cream.

O

off label: A drug prescribed for conditions other than those indicated on the label.

open trial: A drug trial is "open" when doctors and participants know which drug is being administered, as opposed to a double blinded trial in which they do not know (some may receive a test drug or a placebo) until the trial is over.

open-label: A type of drug trial in which researchers and participants know who is taking the experimental drug or the treatment being given.

opportunistic infection (OI): Certain illnesses (such as PCP pneumonia) that people with AIDS can get and which can be life threatening. People with healthy immune systems do not usually get these illnesses, even though most people have the organisms that cause these illnesses in their body already. Only when the immune system is damaged can the organisms take advantage of the "opportunity" of this weakened state and cause damage.

oral (po): Taken by mouth as a pill or liquid.

oxidation: A chemical reaction occurring on exposure to oxygen. At a cellular level oxidation provides energy , but free radicals and other oxidising agents can cause cellular damage.

P

palliative: Offering relief from the symptoms of a disease but not actually curing the disease.

pancreatitis: The pancreas is an organ of the human body attached to the small intestine, just past the stomach. The pancreas produce natural chemicals that digest food. Pancreatitis is a swelling or infection of this organ. Treatment in the hospital is required, although there is no specific treatment. Pancreatitis causes severe stomach pain and illness.

parallel track: A system of distributing experimental drugs to individuals who are unable to participate in ongoing clinical trials.

parasite: An animal or plant that lives inside or upon another living animal or plant without extending any benefit to it in return. Parasites kill millions of people worldwide every year, although some parasites are harmless. The usual means of infection is through contaminated water or poor washing habits. Rimming can also spread parasites.

parasthesia: Burning or tingling sensations, maybe the first symptoms of peripheral neuropathy.

pathogen: Any microorganism that produces a disease.

PCR: See polymerase chain reaction assay.

pentamadine: An antibiotic used in aerosol form as a prevention against PCP. Used in cases where people are allergic to Septrin.

peptide: Two or more chemically linked amino acids.

peripheral neuropathy: A disorder of the nerves, usually involving the hands, feet, arms and legs. Symptoms may include numbness, a tingling or burning sensation, sharp pain, weakness and abnormal reflexes. In severe cases, paralysis may result. This condition can often be successfully treated.

pharmacokinetic trials: Trials which study how the drug is absorbed by the body. People in these trials often have blood tests every few minutes or hours. These trials often require a short stay in the hospital.

phase I study: The first step in human testing of a drug. Designed to evaluate toxicity at different dose levels. Takes place with a small number of participants.

phase II study: The stage at which drug effectiveness is established. Proceeds only if Phase I studies show toxicity to be within acceptable levels. Usually involves 50 to 300 volunteers.

phase III study: Expansion of phase II study to 300 to 3000 volunteers. Designed to back up information gathered in Phase I and II testing. Also compares the drug to other agents, either alone or in combination.

placebo: A substance that has no effect on the body (often referred to as a sugar pill) that is given to one group in a placebo-controlled trial. In placebo-controlled drug studies, a placebo is given to one group of participants, while the drug being tested is given to another group. The results obtained in the two groups are then compared.

placebo effect: A change that occurs when a placebo is taken. Although you may not actually be taking a real treatment you may still experience positive things because you want them to happen. The placebo effect usually wears off, although having a positive attitude may still be helpful in dealing with HIV.

platelet: A blood cell that helps wounds to heal. Platelets also produce other helpful chemicals. HIV can decrease platelets and cause bleeding and other disease. A normal platelet count is between 200,000 to 300,000.

PML: See progressive multifocal leukoencephalopathy.

pneumocystis carinii pneumonia (PCP): It is a type of pneumonia caused by a fungus which grows rapidly in the lungs of people with AIDS. PCP pneumonia is the leading cause of death of people with AIDS, but it is both treatable and preventable. Anyone who is HIV positive should discuss when to take treatments that will prevent PCP with a doctor.

polymerase chain reaction test (PCR): A very sensitive test for the presence of HIV.

PPD(purified protein derivative): A test for tuberculosis. If you are PPD positive you have been exposed to tuberculosis. This does not mean that you have the disease, although everyone who is PPD positive must be treated to avoid getting a serious and contagious form of tuberculosis.

progressive multifocal leukoencephalopathy (PML): A viral infection of the brain that causes memory loss, motor control problems and loss of strength. PML can lead to coma and death.

PRO-MACE/MOPP: a chemotherapy combination used in the treatment of non-Hodgkin's lymphoma.

prophylactic: A drug that helps to prevent a disease before it occurs. For example, Septrin is a prophylactic treatment that prevents PCP pneumonia.

prophylaxis: Taking a drug to prevent yourself from getting an illness.

protease: A substance in the blood that breaks down proteins.

protease inhibitor: A drug that inhibits the protease that the HIV virus needs to grow. Sometimes spelled proteinase.

protein: Plants and animals are made of protein. Amino acids are the building blocks of protein.

protocol: The plan for a clinical trial. A protocol explains why an experimental treatment is being studied and how it will be tested. A detailed plan which states a drug trial's rationale, purpose, drug dosages, length of treatment, how the drug is given, who may participate (inclusion/exclusion criteria).

protozoa: A group of one celled animals, a few of which cause human disease.

p24 antigen: A protein fragment of HIV. The p24 antigen test measures this fragment. A positive result for p24 antigen suggests that HIV is multiplying, although there is debate about this.

PWA: Person with AIDS or people with AIDS.

pyrimethamine (Maloprim): An oral antiprotozoa drug used in combination with sulfadoxine for toxoplasmosis.

R

radiation therapy: A treatment for cancer using radiation produced by a machine.

recombinant: Refers to a genetically engineered compound. These compounds are versions of naturally occurring compounds e.g. rHGH.

renal: Of or relating to the kidneys.

resistance: The ability of a disease to overcome a drug. For example, after long- term use of AZT, HIV can develop strains of virus in the body that are no longer suppressed by this particular drug, and therefore are said to be resistant to AZT.

retina: Innermost covering of the eyeball on which the image is formed.

retinitis: Inflammation of the retina, a part of the eye, which can be caused by cytomegalovirus (CMV) infection. If left untreated, CMV retinitis usually leads to blindness.

retrovirus: Retroviruses are RNA viruses that transcribe their genetic material into DNA using an enzyme called reverse transcriptase.

reverse transcriptase: An enzyme that is needed by HIV to grow.

rifabutin: A drug used for the prevention of MAC. Also used in combination with other drugs for the treatment of MAC infection.

rifampicin: An antimycobacterial drug that is used in combination treatment for tuberculosis. It is also being considered in the treatment of MAC.

ritonavir: A protease inhibitor it has shown anti-HIV activity in combination therapy.

RNA (ribonucleic acid): A nucleic acid occurring in the nucleus and cytoplasm of cells concerned with protein synthesis.

S

salvage therapy: Treatment for individuals who don't respond to or who can't take other treatments for a condition.

sarcoma: A malignant tumour of the skin and soft tissue.

saquinavir (Invirase): A protease inhibitor that has shown anti-HIV activity when used in combination therapy.

selenium: An important anti-oxidant. It has proven anti-cancer effects. An essential building block of glutathione.

sepsis: A serious condition caused by uncontrolled growth of bacteria in the blood. This condition can lead to septic shock. This involves a sudden drop in blood pressure, changes in heart rate and temperature.

septrin: A combination antibiotic drug effective at preventing PCP pneumonia. May also be effective against toxoplasmosis and bacterial infections.

SGOT and SGPT: A blood test to see if the liver is damaged.

shingles: See herpes zoster.

side effects: The action or effect of a drug other than that desired. The term usually refers to undesired or negative effects, such as headache, skin irritation, or liver damage.

sinusitis: Inflammation of the nasal cavities and sinuses.

spinal tap: See lumbar puncture.

SPV-30: A herbal product of the European boxwood tree. This has proven anti-retroviral effects, without toxicities and side effects.

STD: A sexually transmitted disease.

steroid: A type of drug that is used to reduce swelling. Steroids are commonly used in the treatment of PCP pneumonia. They are being tested for the treatment of cryptococcal meningitis as well.

stomatitis: Swelling of the throat that is usually painful. Some drugs, such as ddC, may cause this condition.

subcutaneous: Giving a drug by injecting it under the skin.

superoxide dismutase: A cellular antioxidant enzyme. It comes in two forms one containing zinc the other containing manganese.

suppressor T cells: T cells that turn other T cells off.

surrogate markers: T4 cells are used as a surrogate marker in people who are HIV positive. The T4 cell count itself is not really a direct measure of HIV, but a sign that disease is occurring. The T4 cell count is then said to be a surrogate marker for HIV. Different surrogate markers are being studied to see how well they measure the progress of HIV.

symptom: A sign that the body is going through a process. A fever is a symptom of the body fighting off an infection. A rash is a symptom that the immune system is reacting to something such as dust.

synergism/synergistic: When one drug increases the effectiveness of another one, it is said to have synergism with that drug. This effect is greater than either drug by itself.

systemic: Affecting the whole body.

T

tat: An HIV protein that helps in the production of new HIV particles and ultimately new virus.

T cells: White blood cells that play an important part in the immune system. There are three different types of T cells, each of which has different subsets. The commonly measured T cells are helper T cells, killer T cells, and suppressor T cells. T-helper cell: A subset of T cells. Physicians regularly measure T-helper cell counts in HIV positive people. The normal range for T-helper cells is 480-1800, but may vary.

testosterone: A naturally occurring male hormone. Levels are often reduced in HIV.

thalidomide: A drug that reduces the level of TNF. It is being used in the treatment of wasting.

th 1 response: An acquired immune response. It is promoted by CD4+ "Th1" T-helper cells.

3TC(epivir): A nucleoside analogue with anti-HIV and anti-HBV activity.

thrombocytopenia: A condition in which platelets, a type of blood cell, fail to help blood clot. Treatment is either with drugs (prednisone), removal of the spleen, or by platelet transfusion.

thrush: See candidiasis.

thymus: The organ of the body that trains T cells to be part of the immune system.

T-killer cell (cytoxic T cells): A type of white-blood cell that kills foreign organisms after being activated by T-helper cells.

TNF: See tumor necrosis factor.

total parentral nutrition: A method of supplying nutritional supplements by intravenous infusion.

toxic reaction: A poisonous or unwanted reaction to a vitamin, drug or other substance. A toxic side effect is when a helpful medicine also causes some damage to the blood or body. Toxicity is a measurement of how much damage may be caused.

toxoplasmosis: An inflammation of the brain caused by toxoplasma gondii, a parasite. Frequently causes inflammation of the brain. It may also involve the heart, lung, adrenal glands, pancreas and testicles. This disease is usually mild but it can cause fever and swollen glands, as

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well as severe headaches. Fifty percent of Americans have been exposed to toxoplasma gondii at some point in their lives.

transaminase: An enzyme measurement that indicates the health of the liver.

transfusion: The process of giving blood, or parts of the blood from one person to another.

T-suppressor cell: A type of white blood cell that helps control the body's response to an infection.

tuberculosis (TB): An infection caused by Mycobacterium tuberculosis. Treatment consists of the administration of a combination of antibacterial drugs, usually for at least nine months.

tumor necrosis factor (TNF): A protein produced by macrophages. By itself, TNF destroys cancer cells. TNF can cause fever, chills, fatigue, headache, and inflammation. TNF causes weight loss and probably helps HIV to grow.

V

vaccine: A shot or shots that prevent(s) a disease. Another kind of vaccine, treatment vaccines, are in development and being studied. Treatment vaccines may help fight HIV even after someone has been infected.

vaginal candidiasis: Infection in the vagina with thrush. Presents with pain, itching, redness and white patches in the vaginal wall. Much more common and more difficult to treat in women with HIV infection.

valaciclovir (Valtrex): This is a prodrug of acyclovir i.e. it is broken down into acyclovir in the body.

varicella virus: See herpes zoster virus.

vertical transmission: Transmission of a pathogen such as HIV from mother to foetus or baby during pregnancy or birth.

viraemia: The presence of virus in the blood stream. viral load: The amount of measurable virus in the blood. Tests used to measure virus are PCR and bDNA.

viral load: The number of viral particles (usually HIV) in a sample of blood plasma. Viral load is used as a surrogate marker for disease progression. It is measured by PCR and bDNA tests and is expressed as the number of copies of HIV per millimeter. Decisions on instituting combination are made using viral load test results along with CD4 counts.

virus: The smallest known infectious organism. A group of infectious agents characterized by their inability to reproduce outside of a living cell. They are unable to live or multiply outside of a host cell since most do not possess the means to synthesize protein.

vitamin: Organic chemicals essential in small amounts for normal metabolism, growth and development of the body.

W

wasting syndrome: Severe weight loss involving depletion of muscle mass in people with AIDS and HIV positive individuals which can occur even in the absence of other infections. Unwanted weight loss of more than 10% of body weight plus either chronic diarrhea or chronic weakness and fever for more than 30 days. Treatment is required.

white blood cells: Part of the immune system that protects the body against foreign substances such as disease-producing microorganisms.

Y

yeast infection: See candidiasis.

Z

Zidovudine: See AZT.

zinc: A component of many enzymes. It is important in protecting the cells against oxidation.

Zovirax: See acyclovir.

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