



Alzheimer's disease

A form of dementia first described by Dr Aloïs Alzheimer and characterized by pathological lesions and cell death in a number of brain areas resulting in severe intellectual deterioration. Currently, it is an irreversible and fatal disease.

ANA

Antinuclear antibodies: antibodies that are associated with systemic autoimmune diseases involving connective tissue disorders such as systemic lupus erythematosus, Sjögren's syndrome, etc.

ApoE

Apolipoprotein E: a protein whose main function is to transport cholesterol. The gene for this protein is located on chromosome 19 and is referred to as APOE. There are three forms of APO: $\epsilon 2$, $\epsilon 3$, and $\epsilon 4$. The latter form is associated with about 60% of late-onset Alzheimer's disease cases and is considered to be a risk factor for the disease.

Assay

A chemical or biological test to determine the presence, absence, or quantity of one or more target components such as a drug, virus, etc., in a sample.

Beta-amyloid

A protein that is the primary component of plaques which are characteristic pathological features of Alzheimer's disease.

Biomarker

A biochemical or molecular feature/test that can be used to indicate the presence or measure the progression of a disease or, determine the effects of treatment.

CFTR

Transmembrane conductance regulator gene: mutations in this gene are associated with cystic fibrosis.

cGMP

Current Good Manufacturing Practices: procedures followed by pharmaceutical and biotech firms to ensure that products meet specific requirements for identity, strength, quality, and purity.

Cirrhosis

Chronic liver disease characterized by gradual replacement of normal tissue by fibrous tissue leading to increasing loss of liver function. There are several causes such as alcohol abuse and viral hepatitis.

Clinical trial/ Clinical study

A scientifically controlled study of the safety and effectiveness of a therapeutic agent (drug or vaccine) carried out in consenting human beings.



CSF

Cerebrospinal fluid: a clear, colorless, serum-like fluid that circulates through the ventricles and subarachnoid spaces of the brain and around the spinal cord and serves to protect these organs. Biochemical and pathological changes in the brain can alter the composition of this fluid.

Cystic fibrosis

A common fatal hereditary disease that usually appears early in childhood and is marked by a fundamental disorder of the exocrine glands, especially pancreatic enzyme deficiency and mucus accumulation in the airways.

Dementia

A syndrome characterized by a general loss of intellectual abilities involving impairment of memory, judgement, and abstract thinking as well as/by changes in personality.

Diagnosis

The determination of the presence of a specific disease or infection, usually accomplished by evaluating clinical symptoms and performing laboratory tests.

Drug resistance

The ability of a pathogen such as a bacterium or virus to withstand the effects of a drug.

Epitope

A specific site on the surface of an antigen capable of eliciting an immune response.

Fibrosis

Formation or development of excess fibrous connective tissue in an organ as a result of a reparative or reactive process.

HBV

Hepatitis B virus: a DNA virus chronically infecting more than 350 million persons worldwide and causing serious liver disease.

HCV

Hepatitis C virus: an RNA virus chronically infecting more than 175 million persons worldwide and causing serious liver disease.

HIV

Human immunodeficiency virus: the causative agent of AIDS.

HLA

Human leukocyte antigen: a set of proteins expressed on the surface of cells which are implicated in the recognition of substances foreign to the body and which allow the body to discriminate between self and non-self.



HPV

Human papillomaviruses are a group of over 100 types of viruses of which 30 are sexually transmissible. HPV is the major cause of cervical cancer, the second most common cancer in women.

HTLV

Human T-cell lymphotropic virus: a virus belonging to the Lentivirus genus associated with certain types of leukemia and lymphoma.

In vitro

Outside of the body (eg, in test tubes). IVD means in vitro diagnostics.

LIA[®]

Line immunoassay

LiPA

Line probe assay

MBL

Mannose-binding lectin: soluble protein that acts as a key component of the innate immune system by recognizing the presence of infectious pathogens in the body at an early stage and initiates steps to eliminate them.

Monoclonal antibody

Antibody produced by a single population of identical cells that recognizes and binds to one specific region (epitope) of an antigen.

Multiplex assay

An assay consisting of multiple elements or parts.

NIH

National Institutes of Health: a major division within the US Department of Health and Human Services that is responsible for most of the agency's medical research programs.

PCR

Polymerase chain reaction: a method for amplifying a short sequence of DNA in order to obtain sufficient amounts for diagnostic testing.

Phase I

If preclinical toxicity studies in animals reveal no harmful effects, a phase I study is usually then performed on a limited number of healthy human volunteers to determine the highest tolerated dose and to explore the safety, kinetics, interactions, and pharmacological effects of various doses.



Phase II

In clinical phase IIa studies, efficacy is tested on a limited group of patients, and the optimal administration regimen (dose, frequency) is determined. Often, a phase IIb study with a larger number of patients is required, or a combined phase IIb/III, in order to be able to make statistically justifiable recommendations with regard to the administration regimen.

Phase III

In a phase III study, efficacy and safety of a single or a limited number of drug regimens are evaluated by applying them in a sufficiently large number of patients (usually a few hundred). Efficacy and safety of the new treatment are compared with a placebo or with the existing standard treatment. Usually, several complementary phase III studies are performed simultaneously. The reports of the phase I to III studies are part of the drug registration file. Studies commenced after closing the registration file but before the product is released on the market are sometimes grouped under the name phase IIIb studies.

Phase IV

Phase IV begins when the product is approved for release on the market. Studies on large numbers of people may be helpful after a product is brought into circulation, for instance, in order to trace rare side effects.

Polyepitope

A string of epitopes (immunological targets) linked together to form a powerful immunological package capable of stimulating a strong immune response.

Preclinical study

Stage of drug research development, undertaken prior to the administration of the drug to humans. Consists of in vitro and in vivo screening, pharmacokinetics, toxicology, and chemical upscaling.

Probe

A well-characterized nucleic acid segment that can be used to identify the presence of a specific molecule bearing the complementary sequence.

Tau

A protein that maintains the stability of the microtubules that serve as a transport system within brain cells. Abnormal aggregations of modified tau proteins are chief components of the neurofibrillary tangles found in the brains of patients with Alzheimer's disease.

Tissue typing

In transplantation immunology, the determination of HLA type.