Glossário trilingüe (EN-PT-ES) de termos, abreviações e acrônimos usados com freqüência em Imunologia. 1ª parte

Glosario trilingüe (EN-PT-ES) de términos, abreviaturas y siglas usados con frecuencia en inmunología. 1.ª parte

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Introdução

O termo imunidade deriva do latim *immunitas*, que significava isenção de impostos e processos legais que os senadores romanos gozavam. No sentido original e clássico, desenvolvido nos séculos XVIII e XIX, a imunidade referia-se aos processos envolvidos na proteção ("isenção") contra infecções.

Atualmente sabemos que, em geral, os mecanismos de resistência às infecções são os mesmos envolvidos na resposta do indivíduo frente a qualquer substância estranha (também designada em "imunologuês" de substância não-própria) a seu organismo. Melhor explicando: quando um indivíduo tem um primeiro contato com uma molécula ou uma célula, o sistema imunológico irá inicialmente discriminar se esta substância ou célula é própria (ou seja, inerente ao próprio organismo) ou não-própria (estranha ao organismo). Sob condições normais, quando um indivíduo entra em contato com uma substância ou célula igual à existente no organismo, ou seja reconhecida como própria, o sistema imunológico não irá responder e dizemos que o indivíduo é tolerante ao agente. Ao contrário, o agente que for reconhecido como não-próprio desencadeia uma resposta imunológica específica, além de uma resposta inespecífica, numa tentativa de destruir o não-prório. Estas substâncias estranhas capazes de desencadear uma resposta imunológica e de reagir com os produtos da resposta imunológica são designadas, de forma genérica, antígenos. Muitos dos mecanismos que normalmente protegem os organismos contra infecções e eliminam as substâncias estranhas, são os mesmos capazes de, em determinadas ocasiões, causar lesões tissulares e doenças (por exemplo, doenças auto-imunes, alergias, rejeições a transplantes e enxertos). Por isto, podemos dizer que o fundamento da imunologia reside no reconhecimento do que é próprio e do não-próprio.

Assim sendo, a imunidade atualmente é definida de forma mais ampla, como sendo a reação a substâncias estranhas, inclusive contra microorganismos e macromoléculas (como proteínas e polissacarídios), que não necessariamente implicam conseqüências fisiológicas ou patológicas. Imunologia é, pois o estudo da imunidade em seu sentido mais abrangente e dos eventos moleculares e celulares que ocorrem depois que um ser entra em contato com micróbios e outras moléculas estranhas a seu organismo.

Nos primórdios do conhecimento da imunologia como ciência, em fins do século XVIII, graças às observações de Jenner, sobre a variolação, e depois de microbiologistas como Pasteur e Koch (entre outros) que conduziram aos atuais conhecimentos da imunização artificial, a comunidade biomédica se viu atraída pelas promessas de que esta ciência iria oferecer o fim das doenças infecciosas epidêmicas. Nos séculos XIX e XX ficou evidente que as respostas imunológicas integram também processos envolvendo fenômenos de reconhecimento, caracterização do indivíduo, crescimento e desenvolvimento, hereditariedade, envelhecimento, câncer, transplantes, tornando-se assim parte fundamental de praticamente todas as especialidades médicas e veterinárias.

Métodos e reagentes imunológicos vêm sendo aplicados com crescente freqüência e de formas cada vez mais engenhosas e sofisticadas ao diagnóstico, prevenção e tratamento de inúmeras enfermidades, além de oferecerem instrumentos e conceitos para o estudo dos mecanismos fisiopatológicos de várias doenças. O crescimento praticamente exponencial dos conhecimentos sobre os vários aspectos da imunologia tem sido atribuído ao desenvolvimento de técnicas relativamente novas como imunofluorescência, radioimunensaio, microscopia eletrônica e de varredura, produção de anticorpos monoclonais e técnicas que os utilizam, bem como os novos instrumentos da engenharia genética.

A Imunologia se desenvolveu a ponto de abranger vários ramos e subespecialidades, como imunidade a doenças infecciosas, sorologia, imunoquímica, alergia, imunogenética, imunologia celular, vacinas e imunoterapia, neuroimunologia, imunofarmacologia, imunologia dos tumores, imunidade a transplantes, imunologia do câncer, doenças por imunodeficiências, autoimunidade, etc.

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O progresso dos conhecimentos sobre o funcionamento do sistema imunológico adveio dos recentes avanços em biologia celular e molecular, química de proteínas e virologia. O estudo do sistema imune, por sua vez, contribuiu para os conhecimentos sobre a estrutura protéica, a organização e regulação genética de organismos eucariotos, bem como a respeito do transporte e síntese intracelular de proteínas. A imunologia então se expandiu e segundo alguns estudiosos, seria preferível chamarmos esta ciência de imunobiologia.

O desenvolvimento da imunobiologia pode ser avaliado pelo volume de artigos no assunto: há mais de 1000 periódicos no mundo, que publicam mais de 10 000 artigos por ano em imunologia ou imunobiologia. A avalanche de artigos publicados sobre imunologia e ciências que aplicam os instrumentos e/ou conceitos da imunobiologia, a maioria deles em inglês, induziu-nos a oferecer uma visão paronâmica panorâmica (e… infelizmente superficial) do que é Imunologia e do que ela trata, acompanhada de um glossário inglês – português (brasileiro) – espanhol, com explicações em inglês. Acreditamos que esta publicação poderá auxiliar a tarefa dos que traduzem textos não só sobre imunologia, bem como sobre genética, microbiologia, parasitologia, biologia molecular, clínica médica, endocrinologia, patologia e tantas outras especialidades médicas, além dos que traduzem textos sobre essas ciências, dirigidos ao público leigo.

Nem os artigos sobre imunologia, que pretendemos apresentar em três partes, nem o glossário que acompanha estes capítulos pretende ser completo. Esperamos, entretanto, que possam ser úteis aos tradutores de áreas científicas e médicas. Ficaria muito agradecida se o leitor desejar contribuir com mais alguns termos ou informações, ou obter mais explicações.

Introducción

El término «inmunidad» deriva del latino *immunitas*, que significa la exención de impuestos y procesos legales de que disfrutaban los senadores romanos. En los siglos XVIII y XIX, se utilizó para referirse a los procesos de protección contra las infecciones.

Actualmente sabemos que, en general, los mecanismos de resistencia a las infecciones son los mismos que los de respuesta del organismo frente a cualquier sustancia extraña. Explicado con mayor detalle, cuando un sujeto entra en contacto por primera vez con una molécula o una célula, el sistema inmunitario tiene que distinguir primero si ésta es propia (es decir, del propio organismo) o extraña (ajena a él). En condiciones normales, cuando ese primer contacto se produzca con una sustancia o célula que sea igual a la existente en el organismo y, por tanto, se reconozca como propia, el sistema inmunitario no responderá y se mostrará tolerante frente a ella. Por el contrario, cuando la sustancia o la célula sean interpretadas como extrañas, el sistema inmunitario desencadenará una respuesta inmunitaria específica e inespecífica con objeto de destruirla. Estas sustancias extrañas, denominadas genéricamente *antígenos,* son capaces de desencadenar una respuesta inmunitaria contra ellas. Muchos de los mecanismos que normalmente protegen a los organismos contra las infecciones y eliminan las sustancias extrañas son los mismos que pueden también, en determinadas circunstancias, causar lesiones tisulares (p. ej., reacciones autoinmunitarias, alergia, rechazo de trasplantes e injertos). Por ello podemos decir que una de las propiedades más importantes de la inmunidad es distinguir entre lo propio y lo extraño.

La inmunidad se define actualmente de forma más amplia como una reacción a sustancias extrañas, incluidos microorganismos y macromoléculas (como proteínas y polisacáridos), que no tiene necesariamente consecuencias fisiológicas o patológicas. La inmunología es el estudio de la inmunidad en su sentido más amplio y de los acontecimientos moleculares y celulares que ocurren después de que el organismo entra en contacto con microorganismos y otras moléculas extrañas a él.

Los primeros conocimientos de la inmunología como ciencia, a finales del siglo XVIII, proceden de las observaciones de Jenner sobre la viruela, y porteriomente de microbiólogos como Pasteur y Koch, entre otros. Las nuevas ideas derivadas de estas observaciones, que prometían acabar con las infecciones epidémicas, atrajeron a la comunidad biomédica. En los siglos XIX e XX se comprobó científicamente que las respuestas inmunitarias intervienen también en los procesos de reconocimiento y caracterización del individuo, así como en el crecimiento, la herencia, el envejecimiento, el cáncer y los trasplantes. Esto hizo que la inmunología se convirtiera en una parte fundamental de casi todas las especialidades médicas y veterinarias.

Los métodos y reactivos inmunológicos cada vez se aplican más en el diagnóstico, la prevención y el tratamiento de innumerables enfermedades, además de en el estudio de los mecanismos fisiopatológicos de diversas afecciones. El extraordinario desarrollo de la inmunología se ha atribuido a la creación de técnicas relativamente nuevas, como la inmunofluorescencia, el radioinmunoanálisis, la microscopia electrónica y de barrido, y la producción de anticuerpos monoclonales y las técnicas que los utilizan, así como los nuevos instrumentos de ingeniería genética.

La inmunología se dividió pronto en varias subespecialidades, como la inmunología de las enfermedades infecciosas, la serología, la inmunoquímica, la alergología, la inmunogenética, la inmunología celular, el estudio de las vacunas y la inmunoterapia, la neuroinmunología, la inmunofarmacología, la inmunología del cáncer, la inmunidad de los trasplantes, el estudio de las inmunodeficiencias, el estudio de la autoimunidad, etc.

Los progresos en el conocimiento del sistema inmunitario se apoyaron en los recientes avances de la biología celular y molecular, la química de las proteínas y la virología. El estudio del sistema inmunitario contribuyó, a su vez, a conocer la estructura proteica, la organización y regulación genética de los organismos eucariotas, y el transporte y síntesis intracelular de las proteínas. La parte de la inmunología que trata de ampliar algunos de estos estudios se denomina inmunobiología.

El avance de la inmunobiología puede avalarlo el volumen de artículos publicados sobre este tema: hay más de mil revistas en todo el mundo que incluyen más de diez mil artículos anuales de inmunología/inmunobiología. La avalancha de artículos publicados en el ámbito de la inmunología y de las

ciencias que aplican los instrumentos o conceptos de la inmunobiología, la mayoría en inglés, nos han inducido a ofrecer una breve descripción de esta disciplina, acompañada de un glosario inglés-portugués (brasileño)-español, con explicaciones en inglés. Creemos que este trabajo podrá ayudar a quienes traducen textos científicos o divulgativos de inmunología, genética, microbiología, parasitología, biología molecular, clínica médica, endocrinología, patología y tantas otras especialidades médicas.

Este glosario de inmunología, que presentaremos en tres partes, no pretende ser completo, pero esperamos que resulte útil a los traductores de áreas científicas y médicas. Agradeceríamos mucho a los lectores su contribución con nuevos términos o informaciones.

English	**Definitions/Definições/ Definiciones**	**Português e comentários**	**Español y comentarios**
α/β T cell	T lymphocytes that express surface T cell receptors composed of α and β chains.	célula Tα/β	linfocito Tα/β
α chain (*syn. for* alpha chain)	The heavy chain of IgA or the glycoprotein in the α/β T cell receptor.	cadeia α *ou* cadeia alfa	cadena α *o* cadena alfa
Ab	*Abbrev. for* antibody.	Ac *Em port. usa-se freqüentemente a abreviação Ac para* anticorpo.	Ac *En español se usa* Ac *como abreviatura de* anticuerpo.
ABA	*Abbrev. for* azobenzenearsonate.	ABA *Sigla de* azobenzenoarsonato. *Geralmente é mantida como* ABA, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	AAB *Sigla de* arsonato de azobenceno.
abzyme	Antibodies with regions possessing enzymatic activity (derived from Ab + enzyme). Also artificial molecules resulting from the combination of antibodies and enzymes where the specificity is conferred by the antibody and the catalytic properties by the enzyme. *Also called* catalytic antibody.	abzima *Embora o termo deveria ser traduzido como* aczima, *para respeitar a abreviação Ac (usada no Brasil) para anticorpo, os cientistas brasileiros têm preferido usar* abzima.	abzima *En español quizás sería más correcto* aczima *(Ac + enzima), pero el uso ha consagrado* abzima.
accessory cells	Cells required for, but not actually mediating, a specific immune response. Often used to describe antigen-presenting cells (APC; see below).	células acessórias	células accesorias

accessory molecules	Molecules other than the antigen receptor and the major histocompatibility complex (MHC) on the T cell surface that participate in cognitive, activation, and effector functions of T lymphocyte responsiveness. Many of these molecules increase the adhesion of T cells to other cells, promoting optimal interaction between T helper and antigen presenting cells (APC) or between cytotoxic T cells and their respective target cells.	moléculas acessórias	moléculas accesorias
acquired cell-mediated immunity	An immune state mediated by T cells and characterized by the development of activated macrophages.	imunidade adquirida mediada por células	inmunidad celular adquirida
acquired immune deficiency syndrome (AIDS)	A disease caused by the human immunodeficiency virus (HIV-1) that causes destruction of key components of the immune system, mainly the CD4+ T helper cells. As a result, infected individuals become very susceptible to infections and cancers.	síndrome da imunodeficiência adquirida (AIDS) *Embora a sigla deveria ser* SIDA*, os especialistas brasileiros têm preferido usar* AIDS *e não* Sida *porque a designação* Sida *é pronunciada da mesma forma que* Cida, *apelido comum para o nome próprio* Aparecida, *muito comum no Brasil.*	síndrome de inmunodeficiencia adquirida (sida) *La sigla ya ha sido aceptada en su forma lexicalizada por la RAE, como ocurrió con* radar *y* láser, *por lo que no es necesario mantener las mayúsculas.*
acquired immunity *or* acquired immune response	*See* ADAPTIVE IMMUNITY.	imunidade adquirida *ou* resposta imunológica adquirida	inmunidad adquirida *o* respuesta inmunitaria adquirida
activated macrophage *(syn. for* armed macrophage*)*	A macrophage in a state of enhanced metabolic and functional activity.	macrófago ativado *Sinônimo menos usado:* macrófago armado.	macrófago activado *Sinónimo menos usado*: macrófago armado.
active immunity	Immunity produced as a result of the administration of an antigen (such as a foreign protein, a toxoid, a vaccine or molecules from microorganisms).	imunidade ativa	inmunidad activa
active site (*or* antibody active site)	Part of the antibody molecule that reacts with the antigen that elicited the antibody (antigen binding site). *Caution: it is also the part of an enzyme that reacts with the enzyme substrate (enzymatic active site).*	sitio ativo do anticorpo *ou* sítio anticórpico *Pode ser sítio ativo da enzima ou sítio ativo do anticorpo. Deve-se, pois sempre diferenciar o sítio ativo de uma enzima do sítio ativo do anticorpo*	sitio de unión al antígeno *o* parátopo *Puede ser también el sitio activo o catalítico de una enzima*

acute phase proteins	Plasma proteins whose levels increase or decrease during infection or inflammatory reactions. Acute phase proteins signal an activation of the innate immune system and are not antigen-specific. These proteins also modify the function of immune system cells, minimize tissue injury, and helps in tissue repair. Examples of acute phase proteins include C-reactive protein (CRP), serum amyloid A (SAA), alpha 1-acid glycoprotein, fibrinogen, the proteins C3 and factor B of the complement system, etc.	proteínas de fase aguda	proteínas de la fase aguda
adapter proteins	Proteins acting as bridge or scaffolds for the recruitment of signaling molecules.	proteínas adaptadoras	proteínas adaptadoras
adaptive immunity	Specific immunity acquired through responses of antigen-specific lymphocytes, resulting in immunological memory. *Also known as* acquired immunity *or* acquired immune response.	imunidade específica adquirida *Sinônimos:* imunidade adquirida *ou* resposta imunológica adquirida.	inmunidad específica *o* adaptativa
ADCC	*Abbrev. for* antibody-dependent cell-mediated cytotoxicity.	ADCC *Sigla de* citotoxicidade mediada por células e dependente de anticorpos. *Geralmente é mantida como* ADCC, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	CCDA *Sigla de* citotoxicidad celular dependiente de anticuerpos.
addressins	Adhesion molecules on the endothelium of lymphoid organs and blood vessels able to interact with lymphocyte receptors and regulate lymphocyte emigration from the lymphoid organs and blood to extravascular areas.	adressinas	adresinas
adhesion molecules	Membrane molecules that allow cells to adhere (*See* cell adhesion molecules, ICAM, CAM, addressins, cadherins, selectins *and* integrins)	moléculas de adesão	moléculas de adhesión
adjuvant	A substance added to increase the immune response to the inoculant, in immunizations. Ex.: Freund's complete adjuvant.	adjuvante *Ex.: adjuvante completo de Freund*	adyuvante *Ej.: adyuvante completo de Freund*
adoptive immunity	Immunity induced by transferring preformed T cells from an immunized individual to an unimmunized recipient.	imunidade adotiva *Sinônimo:* imunidade passiva.	inmunidad adoptiva *Sinónimo:* inmunidad pasiva.

AFC or AFCs	*Abbrev. for* antibody-forming cell(s).	AFC *Sigla de* célula(s) formadora(s) de anticorpos. *Geralmente é mantida como AFC, mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	AFC *Sigla de* célula(s) formadora(s) de anticuerpos. *En español suele mantenerse la sigla inglesa.*
affinity	The strength of binding between two molecules such as an antigen and antibody. Usually expressed as an association constant (K_a).	afinidade	afinidad
affinity chromatography	A method to isolate antigens, cells or antibodies based upon the affinity and binding for an immobilized ligand.	cromatografia de afinidade	cromatografía por afinidad
affinity maturation	Increase in antibody affinity observed as an immune response progresses, particularly visible after secondary responses.	maturação da afinidade	maduración de la afinidad
Ag	*Abbrev. for* antigen.	Ag *Abreviação para* antígeno.	Ag *Abreviatura de* antígeno.
agammaglobulinemia	*See* hypogammaglobulinemia. Agammaglobulinemia (absence of gamma globulins) was used in earlier years before the development of methods sufficiently sensitive to detect relatively small quantities of gamma globulin in the blood.	agamaglobulinemia (*vide* hypogammaglobulinemia)	agammaglobulinemia (*véase* hypogammaglobulinemia)
agglutination/ agglutination reactions	The reaction of aggregation of particulate antigen by antibodies. Agglutination applies to red blood cells, bacteria and inert particles covered with antigen *(see* DIFFERENCE WITH PRECIPITATION REACTIONS*)*.	aglutinação/reações de aglutinação	aglutinación/reacciones de aglutinación
AIDS	*Acron. for* acquired immunodeficiency syndrome.	AIDS *ou* síndrome da imunodeficiência adquirida *(no Brasil)* *Nota: Em Portugal usa-se a abreviação* SIDA.	sida *Acrónimo de* síndrome de inmunodeficiencia adquirida.
AIDS-related complex (ARC)	A preamble to AIDS that consists of various symptoms and signs, including fever >38 ºC, loss of body weight (>10 %), lymphadenopathy, diarrhea, night sweats (> three months duration) and fatigue.	complexo relacionado à AIDS	complejo sintomático relacionado con el sida
allele	Alternative form of a polymorphic gene at a given genetic locus.	alelo	alelo

allelic exclusion	The ability of a cell from a heterozygous individual to synthesize only one of its two possible phenotypes. This ensures that B and T lymphocytes express only a single specificity of antigen receptor.	exclusão alélica	exclusión alélica
allergen	A substance that induces an allergy (mold, grasses, certain food, antibiotics, etc.).	alérgeno	alérgeno
allergy	A disease or reaction triggered by an immune response to allergens. Characterized by the release of bioactive agents as a result of mast cell and basophil degranulation, which is usually mediated by antibodies of the IgE class. Also called immediate (type I) hypersensitivity.	alergia	alergia
allogeneic	Refers to intraspecies genetic variations, i.e., a genetic dissimilarity within the same species.	alogénico	alógeno
allograft	A tissue/organ graft between two genetically nonidentical individuals, i.e. two allogeneic members, of a given species.	aloenxerto *ou* homoenxerto	aloinjerto
allotype	A protein that is detectable as an antigen by other members of the same species. In immunology, allotype usually refers to each different genetic form found in H chains (within an Ig class or subclass), L chains or MHC molecules.	alótipo	alotipo
alternative complement pathway	One of the activating forms of the complement system through a series of enzyme reactions triggered by interactions on activating surfaces. Opposite to the classical complement pathway, it does not require the presence of an antigen-antibody reaction. This pathway is triggered by the binding of the C3b fragment to a microbial cell and is part of the natural immunity.	via alternativa de ativação do sistema complemento	vía alternativa del complemento
amplification loop	The alternative complement activation pathway, which acts as a positive feedback loop when C3 is split in the presence of an activator surface.	alça de amplificação	asa de amplificación

ANA	*Abbrev. for* antinuclear antibodies.	ANA *Sigla de* anticorpos anti-núcleo *ou* antinucleares. *Geralmente é mantida como* ANA, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	ANA *Sigla de* anticuerpos antinucleares. *En español suele mantenerse la sigla inglesa.*
anaphylatoxin (*also known as* anaphylotoxin)	Substance capable of releasing histamines and other mediators from mast cells or basophils. The C3a, C4a and C5a of the complement system are anaphylatoxins.	anafilatoxina	anafilotoxina
anaphylaxis	Severe systemic allergic or pseudoallergic reaction involving various organic systems. Also called anaphylactic shock, is an immediate hypersensitivity reaction to antigenic challenge (allergens such as food and some drugs), mediated by IgE and pharmacologically active products released by mast cells. Symptoms of anaphylaxis include breathing difficulty, loss of consciousness and a drop in blood pressure. This condition can be fatal and requires immediate medical attention.	anafilaxia	anafilaxia
anergy	The failure to respond to an antigen, upon contact with it.	anergia	anergia
antibody	A glycoprotein molecule that binds/reacts specifically with antigens. Sometimes it is also referred as immunoglobulins although antibody is a more specific term. All antibodies are immunoglobulins although not all immunoglobulins are antibodies.	anticorpo	anticuerpo
antibody-dependent, cell-mediated cytotoxicity (ADCC)	A type of cytotoxicity in which target cells coated with antibodies are destroyed by certain cells (mainly by natural killer cells), which bear receptors for the Fc portion of the coating antibody (Fc receptors). These receptors allow the killer cells to bind to the antibody-coated target.	citotoxicidade mediada por células e dependente de anticorpo (ADCC)	citotoxicidad celular mediada por anticuerpos (CCMA)

antigen	A substance that can induce a detectable immune response (specific antibodies or T cell response) when introduced into an animal. Antigens are usually complex molecules recognized as non-self by the organism. A complete antigen is both, immunogenic (able to induce an immune response) and antigenic (able to react with the antibodies or cells elicited by itself).	antígeno	antígeno
antigen-binding site	Region of an antibody molecule that binds to the antigenic determinant (*see* active site, paratope).	sítio de combinação do anticorpo	lugar de unión al antígeno
antigenic determinant	An area on the surface of an antigen that stimulates a specific immune response and against which that response is directed. Also called epitope.	determinante antigênico *Sinônimo:* epítopo.	determinante antigénico *Sinónimo:* epítopo.
antigen-presenting cell *(see APC)*	A cell that can present the antigen to lymphocytes, through their cell surface class II MHC (major histocompatibility complex) and stimulate the lymphocytes to provide a specific immune response. Examples of APCs are macrophages and dendritic cells.	célula apresentadora de antígenos	célula presentadora de antígenos
antigen presentation	The process by which certain cells in the body (antigen-presenting cells) express antigen on their cell surface in a form recognizable by lymphocytes.	apresentação de antígeno	presentación del antígeno
antigen processing	The breakdown of antigenic molecules into small peptides, which are then presented on the cell surface, within the MHC groove, to T cells.	processamento de antígenos	procesado del antígeno
antiglobulin	Antibody directed to an immunoglobulin. Usually obtained by injecting immunoglobulin into an animal of another species or by incompatible blood transfusions within the same species.	anti-imunoglobulina	antiglobulina
anti-idiotypic antibodies	Antibodies directed against idiotypic determinants *(see IDIOTYPE)* of another antibody.	anticorpos anti-idiotípicos	anticuerpos antidiotípicos
antinuclear antibodies	Antibodies directed against nuclear constituents (usually nucleoproteins) found in the blood of patients with some disorders, mainly systemic lupus erythematosus (*abbrev.* ANA).	anticorpos antinucleares	anticuerpos antinucleares

antiserum (plural antisera)	Serum containing antibodies against a specific antigen.	anti-soro	antisuero
antitoxins	Protective antibodies that neutralize soluble toxins.	antitoxinas	antitoxinas
APC *or* APCs	*Acron. for* antigen presenting cell(s).	APC *Sigla de* célula(s) apresentadora(s) de antígeno(s). *Geralmente é mantida como* APC, *mas, é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	APC *Sigla de* célula presentadora de antígeno. *En español suele mantenerse la sigla inglesa.*
apoptosis	A form of programmed cell death, characterized by endonuclease digestion of DNA, nuclear degeneration and condensation followed by phagocytosis of cell residua.	apoptose	apoptosis
ARC	*Acron. for* AIDS-related complex.	ARC *Geralmente é mantida como* ARC, *mas é aconselhável que se coloque o significado na primeira vez que o termo aparecer no texto.*	CRS *Sigla de* complejo sintomático relacionado con el sida.
Arthus reaction	A localized subcutaneous immune complex reaction produced by the formation of antigen-antibody complexes; these complexes bind and activate complement components ultimately causing localized vasculitis (cell aggregates, thrombosis, endothelial damage, vascular necrosis and acute inflammation).	reação de Arthus	reacción de Arthus
atopy	A predisposition to present IgE-mediated anaphylactic responses (allergies).	atopia	atopia
attenuated	Rendered less virulent.	atenuado(a)	atenuado
autoantibody	Antibody to self antigens.	autoanticorpo	autoanticuerpo
autocrine	A mode of hormone/cytokine action in which a hormone or a cytokine produces its effects on the cell that produced it.	autócrino	autocrino
autograft	A tissue graft from one area to another on a single individual.	auto-enxerto	autoinjerto
autoimmune disease	Disease caused by an immune reaction against an individual's own tissues.	doença auto-imune	enfermedad autoinmunitaria
autologous	Part of the same individual.	autólogo	autógeno
autoradiography	A technique for detecting radioactively labeled molecules.	auto-radiografia *ou* radioautografia	autorradiografía

avidity	The functional combining strength of an antibody with its antigen. Avidity is related to both the affinity of the reaction between the epitopes and paratopes, and the valencies of the antibody and antigen.	avidez	avidez
avidin	A glycoprotein found in egg white who has a very high affinity and binds to biotin (a water-soluble vitamin), thus preventing biotin absorption.	avidina	avidina
avidin-biotin complex	Complexes that provide the basis for immunological methods useful for the localization of tumour antigens, peptide hormones or other antigens in formalin-fixed tissues (such as in the avidin-biotin peroxidase complex methods), as well as for the detection of very small amounts of immunological complexes (such as in the avidin-biotin immunofluorescence assays).	complexos avidina-biotina	complejos avidina-biotina
B lymphocyte antigen receptor (BCR) complex	Complex expressed on the surface of B lymphocyte that recognizes the antigen and transduces signals. The complex comprises the B cell antigen receptor (BCR) and other molecules.	complexo receptor de antígenos de linfócitos B	complejo del receptor del linfocito B para el antígeno
B lymphocytes or B cells	Lymphoid cells with their antigen receptor composed by surface immunoglobulin proteins (usually IgM monomers). B cells mature in the bone marrow and are responsible for the antibody production. Upon activation, B cells differentiate into plasma cells (antibody secreting cells).	linfócitos B *ou* células B	linfocitos B
BALT	*Acron. for* bronchial-associated lymphoid tissue.	BALT *Sigla de* tecido linfático associado aos brônquios. *Geralmente é mantida como BALT, mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	BALT *Sigla de* tejido linfático del bronquio. *En español suele conservarse la sigla inglesa.*
basophil	Granulocytic white blood cell with cytosolic granules that stain with basic dyes. This cell type has structural and functional similarities to mast cells.	basófilo	basófilo

Bence-Jones proteins (BJ proteins)	Immunoglobulin light chains present in the urine of some multiple myeloma patients.	proteínas de Bence-Jones	proteínas de Bence-Jones
binding site	*See* combining site.	sítio de ligação *ou* sítio de combinação	sitio de unión
blot	The transfer of DNA, RNA or protein molecules from an electrophoretic gel to a nitrocellulose or nylon membrane (by osmosis or vacuum).	"blot" *ou* transferência *No Brasil, "blot" é mais usado que transferência*	*blot o* transferencia
BCG	Bacillus Calmette-Guérin. An attenuated strain of *Mycobacterium tuberculosis* var. *bovis.*	BCG *Sigla de* bacilo de Calmette e Guérin.	BCG *Sigla de* bacilo de Calmette-Guérin.
BGG	*Acron. for* bovine gamma globulin.	BGG *Sigla de* gama globulina bovina. *Geralmente é mantida como* BGG, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	BGG *Sigla de* gammaglobulina bovina. *En español suele mantenerse la sigla inglesa.*
blood group antigens	Antigens found on the surface of red blood cells. Their expression is inherited.	antígenos de grupos sangüíneos	antígenos de los grupos sanguíneos
blast cells	Cells prior to division when they have large amounts of cytoplasm.	células blásticas *ou* blastócitos	células blásticas *o* blastocitos
blocking antibodies	Antibodies that by binding to a target cell serve to protect it from immune destruction.	anticorpos bloqueadores	anticuerpos bloqueantes
bone marrow	The main site of hematopoiesis, in which stem cells give rise to the cellular elements of blood, including red blood cells, monocytes, polymorphonuclear leukocytes, platelets, and lymphocytes. The bone marrow is also a primary lymphoid organ in which mammals B-cell development occurs and is the source of stem cells that give rise to T cells upon migration to the thymus.	medula óssea	médula ósea
bradykinin	A vasoactive nonapeptide which is the most important mediator generated by the kinin system.	bradicinina	bradicinina
BSFs	*Acron. for* B cell stimulating factors. Earlier terms for interleukin 4 (BSF-1) and interleukin 6 (BSF-2).	BSF *Sigla de* fatores estimuladores de linfócitos B. *Geralmente é mantida como* BSF, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	BSF *Sigla de* factores estimulantes del linfocito B. *En español suele mantenerse la sigla inglesa.*

bursa of Fabricius	A primary lymphoid organ in avian species (homologous to mammals bone marrow regarding B-cells development).	bursa de Fabricius	bolsa de Fabricio
bystander lysis	Complement-mediated lysis of cells in the vicinity of a complement activation site, which are not themselves responsible for the activation.	lise de células inocentes	lisis de células inocentes
C *(see* COMPLEMENT SYSTEM*)*	*Abbrev. for* complement.	C (*abreviatura para* complemento)	C (*abreviatura de* complemento)
C domain (*same as* constant region)	The constant domains of antibody and the T cell receptor. These domains do not contribute to the antigen-binding site and show relatively little variability between receptor molecules.	região constante	dominio C *o* región constante
C genes	The gene segments which encode the constant portion of the immunoglobulin heavy and light chains and the α, β, γ and δ chains in the T cell antigen receptor.	genes para a região C	genes de la región constante *o* C
C1 – C9	The components of the complement classical and common (lytic) pathways which are responsible for the inflammatory reactions, opsonization of particles and lysis of cell membranes.	C1-C9	C1-C9
C-reactive protein	An acute phase protein that is able to bind to the surface of microorganisms where it functions as a stimulator of the classical pathway of complement activation, and as an opsonin for phagocytosis.	proteína C-reativa	proteína reactiva con C *o* proteína C-reactiva
cachectin	An old designation for tumor necrosis factor α (TNF α).	caquexina	caquexina
cadherins	A family of calcium dependent cell adhesion molecules (CAM). The intracytoplasmic tails interact with the cell skeleton via linkage proteins referred to as "catenins".	caderinas	cadherinas
CAM	*Acron. for* cell adhesion molecules.	CAM *Sigla de* moléculas de adesão celular. *Geralmente é mantida como* CAM, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	CAM *Sigla de* moléculas de adhesión celular. *En español suele mantenerse la sigla inglesa.*

calcineurin	A calmodulin dependent serine-threonine phosphatase and seems to be involved in T-cell activation processes.	calcineurina	calcineurina
calmodulin	A calcium-binding modulator protein involved in many calcium-regulated processes. It activates various enzymes including calcineurin (which seems in turn involved in the T cell activation).	calmodulina	calmodulina
calnexin	A calcium-binding chaperone molecule that promotes the stability of the MHC and the successful binding of processed antigen and MHC.	calnexina	calnexina
capping	The active clustering of surface structures such as antigens or receptors in a small area on the cell surface.	polarização *Muitas vezes é mantido o termo* capping *em inglês.*	polarización
carcinoembryonic antigen	A glycoprotein occurring in embryonic tissue and reexpressed in a diverse group of neoplastic conditions (although also found in some non-neoplastic conditions).	antígeno cárcino-embrionário	antígeno carcinoembrionario
carrier	An immunogenic macromolecule to which a hapten may be bound so making the hapten immunogenic. The carrier is the molecule part recognized by T cells.	molécula carregadora	transportador
cascade reaction	A series of enzyme reactions in which the products of one reaction catalyze a second reaction, and so forth. Typical example is the Complement System cascade reactions.	reação em cascata	reacción en cascada
caspases	A family of closely related cysteine-dependent proteases that cleave proteins at aspartic acid residues. They are the main effectors of apoptosis or programmed cell death. Caspases derive their name from "*c*ysteine-*asp*artic-acid-prote*ases*".	caspases	caspasas
cationic proteins	Antimicrobial substances present within granules of phagocytes	proteínas catiônicas	proteínas catiónicas

CD (*or* CD antigens)	*Acron. for* cluster of differentiation antigens. As there are hundreds of CDs, we will list below only a few we consider the most known ones.	CD *Sigla de* grupos de diferenciação. *Mantida como* CD, *mas em certos casos é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	CD *Sigla de* grupos de diferenciación. *En español suele mantenerse la sigla inglesa.*
CD1 (CD1a, b, c, d, and e)	A family of MHC class I-like molecules, which appears to bind non-peptide antigens and is probably involved in the lipid antigen presenting cell function. These molecules are found on cortical thymocytes, certain B-cells and dendritic cells.	CD1	CD1
CD2	Adhesion molecule (binds to LFA-3, also known as CD58), involved in T cell activation. Expressed in all T cells, thymocytes and NK cells.	CD2	CD2
CD3	A trimeric complex of γ, δ and ε chains which together with a ζζ homodimer or ζη heterodimer acts as a signal transducing unit for the T-cell receptor. Expressed in thymocytes and in all T cells. The CD3 complex contains the Ag specific T cell receptor (highly variable between different T cell populations). This receptor is responsible for Ag recognition by forming Ag binding pockets.	CD3	CD3
CD4	A cell surface marker, on T cells, mainly helper T cells, that recognizes MHC class II molecules on antigen presenting cells. A small percentage of monocytes and macrophages weakly expresses this marker. CD4 is down-regulated during HIV infection.	CD4	CD4
CD8	An antigenic marker on T cells, mainly cytotoxic T cells, that recognizes and binds to MHC class I molecules on target cells. This adhesion molecule is involved in signal transduction.	CD8	CD8

CD16 (CD16a, CD16b, CD16c)	A family of markers associated with heterodimers and homodimers of CD3 or Fc γ chains receptors, which participate in signal transduction. The majority of NK cells, as well as cells of the monocyte/macrophage lineage, constitutively express CD16, the low affinity receptor for the Fc fragment of IgGs. Mediator of ADCC and NK cells activation. Also found in neutrophils, functioning as a mediator of neutrophil activation by immune complexes.	CD16 (CD16a, CD16b, CD16c)	CD16 (CD16a, CD16b, CD16c)
CD23	Same as "FcεRII". A glycoprotein of the C-type lectin superfamily found in mastocytes and basophils (same as FcεRII). Also expressed in other cells such as IgM-IgD+ B-cells in peripheral blood.	CD23	CD23
CD66	A carcinoembryionic antigen. CD66e is found in extracts of colon tumor tissues and in normal fetal colon. High levels of CD66 are found in patients with colorectal cancer. CD66b (formerly CD67) is expressed in leukocytes of chronic myeloid leukemia patients and bone marrow.	CD66	CD66
CEA	*Acron. for* carcinoembryonic antigen.	ACE *Sigla de* antígeno carcinoembrionário.	CEA *Sigla de* antígeno carcinoembrionario. *En español suele mantenerse la sigla inglesa.*
cell adhesion molecules	Cell membrane molecules responsible for the cell-cell interactions or cell extracelullar matrix.	moléculas de adesão celular	moléculas de adhesión celular
cell cycle	The process of cell division which is divisible into four phases: G1, S, G2 and M. DNA replicates. during the S phase and the cell divides in the M (mitotic) phase.	ciclo celular	ciclo celular
cell-mediated hypersensitivity	A T lymphocyte-mediated hypersensitivity reaction of the delayed type that develops in response to an allergen applied in the skin. Also known as type IV hypersensitivity.	hipersensibilidade mediada por células	hipersensibilidad celular
cell-mediated cytotoxicity	Killing (lysis) of a target cell by effector T lymphocytes (T_{cit}).	citotoxicidade mediada por células	citotoxicidad celular

cell-mediated immunity (*also known as* cellular immunity)	A form of immune response mediated by T lymphocytes and macrophages; it can be conferred on an animal by adoptive transfer.	imunidade mediada por células	inmunidad celular
central tolerance	Tolerance (specific immunologic unresponsiveness/tolerance) that occurs centrally, i.e. in the primary lymphoid organs (such as bone marrow and thymus).	tolerância central	tolerancia central
CFU	*Acron. for* colony forming unit.	UFC *Sigla de* unidade(s) formadora(s) de colônia(s).	CFU *Sigla de* unidad formadora de colonias *En español suele mantenerse la sigla inglesa.*
CH region	Regions in the immunoglobulin heavy chains that are constant among the different classes and subclasses of immunoglobulins.	região CH	región CH
chaperone	Any protein from the chaperonins family present in the endoplasmic reticulum able to guide the proper folding of secreted proteins through a complex series of binding and release. These proteins also promote the successful loading of processed antigens (peptides) onto class II MHC. *See also* HEAT-SHOCK PROTEIN.	chaperones	chaperonas
CH_{50} unit	The quantity or dilution of the serum required to lyse 50 % of the red cells in a standard hemolytic complement assay.	*Abrev. para* unidades 50 % de hemólise. CH50 *ou* CH_{50}.	CH50 *o* dilución de suero necesaria para lisar el 50 % de los hematíes cubiertos con anticuerpos.
chemokines	A family of small cytokines produced mainly by macrophages, endothelial cells, fibroblasts. Chemokines regulate migration of leukocytes (especially neutrophils) from blood to tissues and cell activation. The chemokines produced by activated T cells regulate the migration of inflammatory macrophages, besides normal immune regulation.	quimiocinas *ou* quimocinas *(as duas grafias são aceitas)*	quimiocinas
chemotaxis	Migration of cells or organism toward increasing concentrations of a chemical substance.	quimiotaxia	quimiotaxia
chromatography	A variety of techniques useful for the separation of proteins.	cromatografia	cromatografía

class I MHC protein *or* class I antigens	Heterodimeric surface glycoproteins encoded by the A, B and C locus of the major histocompatibility complex in humans, which functions mainly in antigen presentation to CD8+ T cells. Found on the surface of all nucleated cells; these antigens enable the immune system to distinguish self from foreign antigens. In humans these proteins are also referred as class I HLA.	proteínas classe I do CHP *ou* antígenos de classe I	proteínas de la clase I del MHC
class II MHC protein *or* class II antigens	Heterodimeric surface glycoproteins encoded by the Dr, Dq or DP locus of the major histocompatibility complex which function mainly in antigen presentation to CD4+ T cells. Found on the surface of most B-lymphocytes, some T cells and some macrophages. In humans these proteins are also referred as class II HLA.	proteínas classe II do CHP *ou* antígenos de classe II	proteínas de la clase II del MHC
class III MHC protein *or* class III antigens	A diverse group of molecules that perform a variety of functions in the body. They include some complement proteins, and some inflammatory cytokines, tumor necrosis factors (TNF-α and -β) and two heat shock proteins which help cells deal with heat, stress and viral infection.	proteínas classe III do CHP *ou* antígenos de classe III	proteínas de la clase III del MHC
classical pathway *(of the complement activation)*	A series of enzyme reactions classically triggered by antigen-antibody complexes, leading to activation of the complement system.	via clássica de ativação do sistema complemento	vía clásica de activación del complemento
class switch (*same as* isotope switch)	A change (”switch”) in the expression of B-lymphocytes from one antibody class (isotype) to another. This change in immunoglobulin isotype occurs during the course of the immune response as a result of heavy chain gene switching; although the B cell stops secreting antibody of one isotype and starts producing antibody of a different isotype, the antigenic specificity remains the same.	troca de classe (*ou* troca de isótipo)	cambio de clase *o* de isotipo

clonal deletion	The destruction of a lymphocyte clone, of a particular specificity, due to contact with either self or foreign antigens. Very important to avoid anti-self reactions by the destruction of immature lymphocytes that would produce immune reactions against the animal's own body. Clonal deletion is a major mechanism of central tolerance.	eliminação clonal *Cuidado para não traduzir como* deleção clonal, *um anglicismo desnecessário.*	eliminación clonal
clonal selection	The fundamental basis of lymphocyte activation in which antigen selectively stimulates only those cells which express receptors for it to divide and differentiate.	seleção clonal	selección clonal
clonal expansion	The proliferation of T- or B-cells by the reaction of their antigen receptors (i.e., TCR or BCR, respectively) with an antigenic determinants/antigens.	expansão clonal	expansión clonal
cluster of differentiation *(see CD)*	Cell surface molecules (either markers or receptors) classified according to the internationally accepted cluster of differentiation (CD) classification, in which individual molecules are assigned a CD number on the basis of their reactivity to panels of monoclonal antibodies. The cell surface molecule is designated CD followed by a number (e.g. CD4 and CD8).	grupo de diferenciação	grupo de diferenciación
CMI	*Acron. for* cell mediated immunity.	IMC *Sigla de* imunidade mediada por células.	IC *Sigla de* inmunidad celular.
cobra venom factor	A cobra complement component equivalent to mammalian C3b.	fator veneno de cobra	factor del veneno de cobra
combining site *Same as* active site *and* binding site	The reactive part of a macromolecule that directly participate in its specific combination with another molecule. Examples: antibody-combining site (or antibody active site) is the site of an antibody that interacts with the part of the antigen called antigenic determinant; B and T antigen receptor sites.	sítio de combinação *Sinônimo:* sítio de ligação e sítio anticórpico ativo.	lugar de unión
complement fixation (CF) test	An assay for detecting the presence of antibodies reactive against a particular antigen, e.g. a virus, a bacteria or a fungal cell.	reação de fixação do complemento (RFC)	prueba de fijación del complemento

complement *or* complement system	A group of serum proteins produced mainly by the liver, some of which act in an enzymatic cascade; the complement system is activated by factors such as the antigen-antibody combination and results in a variety of biological consequences including killing of microorganisms and cells, microorganisms opsonization, and phagocytes recruiting. The protein cascade also mediates inflammation, and assists in immune homeostasis of self-antigens There are three modes of complement activation: the classical complement activation pathway, the alternative pathways and the lectin induced complement pathway (recently known).	complemento *ou* sistema complemento	complemento *o* sistema del complemento
complement receptors (CR)	Cell-surface glycoproteins on various cells that recognize and bind complement proteins that have bound an Ag. Complement receptors on phagocytes allow them to identify pathogens coated with complement proteins for uptake and destruction. Complement receptors include CR1, the receptor for C1q, CR2, CR3, and CR4.	receptores de complemento	receptores del complemento
complete antigen	See ANTIGEN.	antígeno completo	antígeno completo
Con A	*Abbrev. for* concanavalin A.	Con A	Con A
concanavalin A	A lectin derived from the jack bean that stimulates predominantly T lymphocytes to undergo mitosis and proliferate.	concanavalina A	concanavalina A
congenic	Animals which are genetically constructed to differ at one particular locus.	congênico	congénico
conjugate	A reagent formed by covalently coupling two molecules together, such as fluorescein (in fluorescent reactions) or peroxidase (in immunoenzymatic reactions) coupled to an immunoglobulin molecule.	conjugado	conjugado

convertase	An enzymatic activity that converts a protein (such as a complement component protein) into its reactive form by cleaving it. Generation of the C3 convertase and the C5 convertase are the main events in complement activation.	convertase	convertasa
CR	*Abbrev. for* complement receptors.	CR	CR
CR1 (complement receptor type 1)	High affinity receptor for the fragments C3b, C4b and iC3b resulting from the complement cascade activation. Found in various cells, such as red blood cells, macrophages, eosinophils and B- lymphocytes. Involved in the clearance of circulating immune complexes and other biological functions. Also know as CD35.	CR1	CR1
CR2 (complement receptor type 2)	Receptor for the fragments iC3b, C3dg resulting from the complement cascade activation, as well as for the EBV (Epstein-Barr virus). Found in some cells, including B-lymphocytes, nasopharyngeal epithelial cells and some dendritic cells. A mode of EBV infection and may be involved in B cell activation. Also known as CD21.	CR2	CR2
CR3 (complement receptor type 3)	Binds to iC3b. It is an integrin found in monocytes, macrophages, neutrophils and natural killer cells. It is a cell adhesion protein required for cell adhesion, chemotaxis and phagocytosis.	CR3	CR3
CR4 (complement receptor type 4)	An integrin that binds iC3b; CR4 is found on neutrophils, monocytes and platelets. Enhances C receptor –mediated phagocytosis, mediates Fc receptor-independent phagocytosis. Also involved in the degranulation and release of histamine and other mediators of inflammation.	CR4	CR4
^{51}Cr release	Method for detecting cell-mediated cytotoxicity by allowing cells that will be lysed to take up a radioactive isotope of chromium into their cytosol; death results in the release of the chromium into the culture fluid.	liberação de cromo radioativo ou ^{51}Cr	liberación de cromo radiactivo o ^{51}Cr

cross-reaction	The reaction of an antibody directed against a given antigen, with a second antigen. This occurs because the two antigens possess common or similar epitopes.	reação cruzada	reacción cruzada
CTL(s)	*Acron. for* cytotoxic T lymphocyte(s) *or* cytotoxic T cells.	CTL *Sigla de* células T citotóxicas. *Geralmente é mantida como* CTL, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	LTC *Sigla de* linfocito T citotóxico.
cyclophosphamide	A cytotoxic drug frequently used as an immunosuppressive.	ciclofosfamida	ciclofosfamida
cytokines	Cytokines are soluble polypeptides (hormones or messengers) produced by cells (mainly by macrophages and lymphocytes) that affect the behavior of other cells. They mediate cellular interactions and regulate cell growth and function. As a result, they regulate the immune response. Cytokines made by lymphocytes are often called lymphokines or interleukins (abbreviated IL), but the generic term cytokine is used most of the time. Cytokines include also interferons, tumor necrosis factor (TNF) and some growth factors. They act on specific cytokine receptors expressed by the cells that they affect.	citocinas	citocinas
cytotoxic T lymphocyte (*also known as* cytotoxic T cell *and* cytolytic T lymphocyte)	A T lymphocyte that can injure or kill other cells. These lymphocytes are very potent and specific in action: they rapidly kill virus-, bacteria- or parasite-infected cells, by destroying the cell membrane and inducing apoptosis. The cytotoxic T lymphocyte kills its target cell by recognizing complexes of peptides and major histocompatibility complex molecules on the target cell membrane. Most cytotoxic T cells are MHC class 1-restricted, CD8+ T cells, but CD4+ T cells can also kill target cells in some unusual cases.	linfócito T citotóxico *Sinônimos:* célula T citotóxica *e* linfócito T citolítico.	linfocito T citotóxico
cytophilic	Having a propensity to bind to cells.	citofílico	citofílico

cytostatic	Having the ability to stop cell growth.	citostático	citostático
D genes	Sets of gene segments lying between the V and J genes in the immunoglobulin heavy chain genes, and in the T cell receptor β and γ chain genes which are recombined with V and J genes during ontogeny.	genes D	genes D
DAF	*Abbrev. for* decay accelerating factor.	DAF *Sigla de* fator de aceleração do decaimento. *Geralmente é mantida como* DAF, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	DAF *Sigla de* factor acelerador de la disgregación.
DIC	*Acron. for* disseminated intravascular coagulation.	DIC Sigla para coagulação intravascular disseminada *Geralmente é mantida como* DIC, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	CID *Sigla de* coagulación intravascular diseminada.
DTH	*Acron. for* delayed type hypersensitivity.	HTT *Sigla de* hipersensibilidade tipo tardio.	HR *Sigla de* hipersensibilidad retardada.
DTP	*Acron. for* diphtheria, tetanus and pertussis vaccine.	DTP *Sigla de* vacina tríplice contra difteria, tétano e coqueluche (*pertussis*). *Aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	DPT *Sigla de* vacuna contra la difteria, el tétanos y la tos ferina. *En español suele mantenerse la sigla inglesa.*
decay accelerating factor	A glycoprotein found in red blood cells, platelets, leukocytes and some other cells. It helps the dissociation of some enzymes (convertases) produced during the complement cascade (e.g. C4b2a is dissociated back in C4b and C2a; C3bBb is dissociated in C3b and Bb), acting therefore as a regulator of the complement cascade.	fator de aceleração do decaimento	factor acelerador de la disgregación
degranulation	The process in which cytoplasmic storage granules fuse with fagosomes, discharge their contents and disappear from the cytoplasm. A classic example is the degranulation of mast cells or basophils in immediate (type I) hypersensitivity.	degranulação	desgranulación

delayed-type hypersensitivity	A cell-mediated inflammatory reaction in the skin, so-called because it takes 24 to 48 hours to reach maximum intensity. It is mediated by T lymphocytes (usually CD4+) and macrophages. Typical example: tuberculin reaction.	hipersensibilidade tipo tardio	hipersensibilidad retardada
δ chain (*syn. for* delta chain)	The heavy chain of IgD or the glycoprotein in the δ/γβ T cell receptor.	cadeia δ *ou* cadeia delta	cadena δ *o* delta
dendritic cells	A heterogenous macrophage-like cells that function as antigen-trapping and antigen-presenting cells, including: Langerhans cells, blood dendritic cells, interdigitating cells, among others.	células dendríticas	células dendríticas
desensitization	Repeating administration of low doses of an antigen to reduce immune hypersensitivity to that antigen. This increases blocking antibodies (IgG) and decreases IgE production.	dessensibilização	desensibilización
diapedesis	The emigration of blood cells through intact cell walls, that occurs mainly during inflammation.	diapedese	diapédesis
differentiation antigens	A cell surface molecule expressed at a particular stage of lymphocyte development or on cells of a given lineage.	antígenos de diferenciação	antígenos de diferenciación
disseminated intravascular coagulation	Activation of the clotting cascade within the circulation. A severe post transfusional reaction.	coagulação intravascular disseminada	coagulación intravascular diseminada
DiGeorge syndrome	Immunodeficiency caused by a congenital failure in thymic development resulting in a lack of mature functional T-cells, but normal B-lymphocytes. These patients are very susceptible to intracellular microorganisms.	síndrome de DiGeorge	síndrome de DiGeorge
diversity genes	Genes coding the variable segment of the immunoglobulin heavy chains on B-cells or the variable segment of the T-cell receptors. These genes encode part of the third hypervariable region in these antigen receptor chains.	genes da diversidade	genes de diversidad

domain	A loop made up of about 110 amino acids around an S-S bond found in immunoglobulins, T-cell receptors, class I and class II MHC antigens. These domains present high homology in their aminoacids sequence and probably originated from a common ancestral gene.	domínio	dominio
dot blot	A semiquantitative method of examining the level of an antigen in a sample. Samples are spotted onto a nitrocellulose or nylon membrane and the antigen will be non-specifically bound to the membrane. The "blotted" antigens are quantified immunochemically, usually using an antigen-specific first antibody followed by a conjugate comprised of an antibody against the first antibody plus an enzyme (such as horseradish peroxidase or glucose oxidase) or plus a radioactive label. The blot is developed using either a chromogenic substrate or autoradiography, respectively.	teste de *dot-blot*	prueba de transferencia puntual *En español se mantiene muy a menudo el nombre inglés de la prueba.*
double-negative T lymphocytes	Immature T cells within the thymus that lack expression of the two co-receptors: CD4 and CD8.	linfócitos T duplo negativo	linfocitos T con negatividad doble *o* timocitos con negatividad doble
double-positive T lymphocytes	Immature T cells within the thymus that express at the same time both co-receptors: CD4 and CD8.	linfócitos T duplo positivo	linfocitos T con positividad doble *o* timocitos con positividad doble
dsDNA	Double-stranded DNA.	dsDNA (DNA de dupla hélice/cadeia dupla)	ADNbc (ADN bicatenario) *En español se mantiene a menudo la sigla inglesa.*
dysgammaglobulinemia	The abnormal production of gammaglobulins in blood: usually a selective immunoglobulin deficiency.	disgamaglobulinemia	disgammaglobulinemia
ECF-A	*Acron. for* eosinophil chemotactic factor of anaphylaxis.	ECF-A *Sigla de* fator quimiotático para eosinófilos na anafilaxia. *Geralmente é mantida como* ECF-A, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	ECF-A *Sigla de* factor quimiotáctico del eosinófilo para la anafilaxia. *En español suele mantenerse la sigla inglesa.*

EDTA	*Acron. for* ethylene-diaminetetraacetic acid.	EDTA *Sigla de* ácido etilenodiaminotetracético *ou* etilenodiaminotetracetato. *Geralmente é mantida como* EDTA, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	EDTA *Sigla de* ácido etilendiaminotetraacético (IUPAC) *o* ácido edético (OMS). *En español suele mantenerse la sigla inglesa*
EIA	*Acron. for* immunoenzymatic assay.	EIA *Sigla de* ensaio imunoenzimático. *Geralmente é mantida como* EIA, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	EIA *Sigla de* enzimoinunoanálisis. *En español suele matenerse la sigla inglesa.*
effector cells	Cell that carry out an immunologic attack or is able to ”effect” an immune response. These include cytotoxic T cells and plasma cells.	célula efetora	célula efectora
electrophoresis	A technique that enables the separation of molecules in a mixture by subjecting them to an electric field.	eletroforese	electroforesis
ELAM-1	*Acron. for* endothelial-leukocyte adhesion molecule-1.	ELAM-1 *Sigla de* molécula 1 de adesão leucócito-endotélio. *Mantida como* ELAM-1, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	ELAM-1 *Sigla de* molécula 1 de adhesión del leucocito al endotelio.
ELISA	*Acron. for* enzyme-linked immunosorbent assay.	ELISA *Acrônimo do* tipo mais usado de ensaio imunoenzimático, *o* ensaio imunoenzimático em fase sólida. *Geralmente é mantido como* ELISA, *mas é aconselhável colocar o significado na primeira vez que o termo aparecer no texto.*	ELISA *Acrónimo de* análisis inmunoenzimático sobre adsorbente. *En español suele mantenerse la sigla inglesa.*
ELISPOT	*Acron. for* enzyme-linked immunospot (an ELISA variant used mainly to detect cytokine-producing cells). ELISPOT derives its name from ELISA-SPOT.	ELISPOT *Acrônimo de* teste de imunoenzimático de difusão, *genericamente chamado apenas de* ELISPOT.	ELISPOT *En español se mantiene siempre el acrónimo inglés.*
electroimmunodiffusion (*also called* counterimmuno-electrophoresis)	An immunodiffusion technique run over a slide in which antigens and antibodies are driven toward each other in an electric field resulting in precipitation lines.	eletroimunodifusão (contraimunoeletroforese)	electroinmunodifusión (contrainmunoelectroforesis)

endocytosis	The uptake of extracellular macromolecules by cells and subsequent production of an intracellular vesicle, which encloses the ingested material.	endocitose	endocitosis
endogenous antigen	An antigen synthesized within body cells (e.g., a virus protein).	antígeno endógeno	antígeno endógeno
endosomes	Cytoplasmic vesicles formed by invagination of the outer cell membrane. They contain endocytosed substances.	endossomas	endosomas
endothelial-leukocyte adhesion molecule-1 (*same as* E-selectin)	A type of selectin (also called E-selectin), expressed on inflamed endothelial cells of the post capillary venules which binds some carbohydrate moieties found on glycoproteins and glycolipids on phagocytes, Langerhans cells, and lymphocytes.	molécula 1 de adesão leucócito-endotélio	molécula 1 de adhesión del leucocito al endotelio
endotoxins	Pathogenic lipopolysaccharide components of gram-negative bacterial cell walls	endotoxinas	endotoxinas
enzyme-linked immunosorbent assay (ELISA)	An immunologic assay for detection or quantitation of antigens or antibodies that uses ligands (e.g. anti-immunoglobulins) conjugated to an enzyme (usually horseradish peroxidase or alkaline phosphatase). This conjugate changes the color of a substrate bound to an inert surface. The colour product can be read in a spectrophotometer.	ensaio imunoenzimático em fase sólida (ELISA)	análisis inmunoenzimático sobre adsorbente (ELISA)
enzyme-linked immunospot (ELISPOT)	An exceptionally sensitive method to count the number of cytokine-producing cells within a cell suspension or the number of antibody producing cells of a given specificity. It is an adaptation of ELISA: cells are placed over antibodies against cytokines (or specific antigens) attached to a plastic surface. The antigen or antibody traps the cells' secreted products, which can then be detected by using an enzyme-coupled antibody that cleaves a colorless substrate to make a localized colored spot. ELISPOT derives its name from ELISA-SPOT.	teste imunoenzimático de difusão, *genericamente chamado apenas de* ELISPOT.	ELISPOT *En español se mantiene siempre el acrónimo inglés.*

eosinophil	Leukocyte important in defense against extracellular parasites and in immediate hypersensitivity reactions.	eosinófilo	eosinófilo
eosinophil chemotactic factor of anaphylaxis	An acid polypeptide chemotactic for eosinophils. This molecule is released by mast cells during anaphylactic reactions.	fator quimiotático para eosinófilos na anafilaxia	factor quimiotáctico del eosinófilo para la anafilaxia
eosinophilia	Increased numbers of eosinophils in the blood.	eosinofilia	eosinofilia
epithelioid cells	Macrophages that accumulate around a tubercle and resemble epithelial cells in histological sections.	células epitelióides	células epitelioides
epitope	*See* antigenic determinant.	epitopo (*mesmo que* determinante antigênico)	epítopo
Epstein-Barr virus (EBV)	Herpes virus (HHV-4), the causal agent of Burkitt's lymphoma, infectious mononucleosis, and nasopharyngeal carcinoma.	vírus Epstein-Barr (EB)	virus de Epstein-Barr
equivalence point (*same as* equivalence zone)	The ratio of antibody to antigen at which immunoprecipitation of the reactants is virtually complete, with no antigen nor antibody excess.	ponto de equivalência *ou* zona de equivalência	punto de equivalencia (*o* zona de equivalencia)
erythema	Redness produced by congestion of the capillaries entering tissue spaces.	eritema	eritema
E-selectin (*same as* endothelial-leukocyte adhesion molecule-1)	*See* endothelial-leukocyte adhesion molecule-1.	selectina E	selectina E
ESL-1	*Acron. for* E-selectin ligand.	*Sigla de* ligante da selectina E. *Pode ser mantida como* ESL-1 *mas geralmente é designado por extenso.*	ESL-1 *Sigla de* ligando de selectina 1. *En español suele mantenerse la sigla inglesa.*
exocytosis	The export of material from a cell by the fusion of cytoplasmic vesicles with the outer cell membrane.	exocitose	exocitosis
exogenous antigen	A foreign antigen that originates at a source outside the body (e.g., bacterial antigens).	antígeno exógeno	antígeno exógeno
exon	A coding sequence in a gene.	exon	exón
exotoxins	Soluble protein toxins, usually produced by gram-positive pathogenic bacteria.	exotoxinas	exotoxinas

exudate	The extracellular fluid containing proteins and cellular debris which accumulates during inflammation.	exsudato	exudado

Bibliografia

Abbas AM, Lichtman AH, Pober JS. Cellular and Molecular Immunology. 2.ª ed. Filadelfia: W.B. Saunders Company; 1994.

Calich V, Vaz C. Imunologia. Rio de Janeiro: Livraria e Editora Revinter Ltda; 2001.

Dorland's Illustrated Medical Dictionary. 28.ª ed. Filadelfia: W.B. Saunders Company; 1994.

Mota I, Alvarez JA, Fernandes I. Dicionário de Imunologia: inglês, português, espanhol. São Paulo: Ateneu Editora;1999.

Roitt I, Brostoff J, Male D. Immunology. 2.ª ed.. Londres: Gower Medical Publishing; 1989.

Smith AD et al (eds.). Oxford Dictionary of Biochemistry and Molecular Biology. Nueva York: Oxford University Press; 2003.

Internet

Benjamini E, Coico R, Sunshine G. Immunology Glossary. <www.wiley.com/legacy/products/subject/life/immuno/glossary.html>.

Claros G, Saladrigas MV, González-Halphen. Vocabulario inglés-español de bioquímica y biología molecular (3.ª entrega) Panace@ 2003, 4 (12): 136-142. <www.medtrad.org/panacea/IndiceGeneral/n12_tradyterm_Claros-Saladriga-Halphen.pdf >.

Claros G, Saladrigas MV, González-Halphen. Vocabulario inglés-español de bioquímica y biología molecular (5.ª entrega) Panace@ 2004, 5 (16): 109-126. <www.medtrad.org/panacea/IndiceGeneral/n16_tradyterm_Claros-Saladrigas-GonzalezH.pdf>.

Dalhousie University – Faculty of Medicine: Immunology Bookcase (2005). <http://pim.medicine.dal.ca/home.htm>.

Decker JM. Immunology Glossary (2003). <http://microvet.arizona.edu/Courses/MIC419/Toolbox/glossary.html>.

Dorland's Illustrated Medical Dictionary. <www.mercksource.com/pp/us/cns/cns_hl_dorlands.jspzQzpgzEzzSzppdocszSzuszSzcommonzSzdorlandszSzdorlandzSzdmd_a-b_00zPzhtm>.

HayGlass K. Glossary of Basic Terms for Immunology Series (2000). <www.umanitoba.ca/faculties/medicine/ units/immunology/pdffiles/glossary.pdf>.

Lemon SM, Barbour AG. A Glossary of Terms Commonly Used in Molecular Biology. <www.med.unc.edu/wrkunits/3ctrpgm/pmbb/mbt/GLOS.htm>.

National Jewish Medical and Research Center. Respiratory and Immunology Glossary. <www.nationaljewish.org/fp10.html>.

Pharmacia & Upjohn Co. Nursing Advisory Board. Cancer Glossary. <www.meds.com/glossary.html>.

Queensland Institute of Medical Research (Brisbane, Australia). Glossary of Terms (2005). <www.qimr.edu.au/qimr_glossary.html>.

Roitt's Essential Immunology Glossary (2002). <www.roitt.com/glossary.htm>.

Saladrigas MV, Claros G. Vocabulario inglés-español de bioquímica y biología molecular (1.ª entrega) Panace@ 2002, 3 (9-10): 13-28. <www.medtrad.org/panacea/IndiceGeneral/Pana9_tradyterm_mvsgc.pdf>.

Saladrigas MV, Claros G. Vocabulario inglés-español de bioquímica y biología molecular (2.ª entrega) Panace@ 2003, 4 (11): 18-29. <www.medtrad.org/panacea/IndiceGeneral/n11-tradytermbiomolecular.pdf>.

Saladrigas MV, Claros G, González-Halphen. Vocabulario inglés-español de bioquímica y biología molecular (4.ª entrega) Panace@ 2003, 4 (13-14): 239-250. <www.medtrad.org/panacea/IndiceGeneral/n13-14_tradyterm-biologiamolecular.pdf>.

The Merck Index. 13.ª ed. (Glossary). Whitehouse Station: Merck & Co., Inc.; 2002. <www.merckbooks.com/mindex/pdf/Glossary.pdf>.