

RECALLING Resolution Conf. 8.16, adopted by the Conference of the Parties at its eighth meeting (Kyoto, 1992);

RECALLING Resolution Conf. 10.2 (Rev.), adopted by the Conference of the Parties at its 10th meeting (Harare, 1997) and amended at its 11th meeting (Gigiri, 2000);

RECALLING the provisions of Article VI of the Convention regarding permits and certificates;

OBSERVING that false and invalid permits and certificates are used more and more often for fraudulent purposes and that appropriate measures are needed to prevent such documents from being accepted;

RECOGNIZING the need for Parties to be particularly vigilant regarding the issuance of permits and certificates for very valuable specimens and specimens of species included in Appendix I;

RECOGNIZING that permits and certificates may be issued in paper, electronic or both formats;

RECOGNIZING that there is no obligation on Parties to issue permits or certificates in electronic formats;

RECOGNIZING that Parties issuing permits or certificates in electronic formats will need to issue them also in paper format unless specific agreement has been reached with other affected Parties;

CONSIDERING the need to improve the standardization of permits and certificates with international norms and standards;

NOTING that the [CITES electronic permitting toolkit](#) provides guidance to Parties on common internationally recognized information exchange formats, protocols and standards, and electronic signatures;

RECOGNIZING the need to adopt the principles outlined in the *CITES electronic permitting toolkit* to facilitate the exchange of information among national Management Authorities;

RECOGNIZING that the *CITES electronic permitting toolkit* will require updates and revisions to reflect the ongoing development of international standards;

RECOGNIZING that the issuance of CITES permits and certificates serves as a certification scheme for assuring that trade is not detrimental to the survival of species included in the Appendices;

CONSCIOUS that the data carried on permits and certificates must supply maximum information, as much for export as for import, to allow verification of the conformity between the specimens and the document;

RECOGNIZING that the Convention provides no guidance about the acceptability of an export permit whose period of validity expires after the specimens have been exported but before the permit has been presented for import purposes;

CONSIDERING that no provision exists to establish the maximum time validity of import permits, and that it is necessary to establish a time validity appropriate to guarantee compliance with the provisions of Article III, paragraph 3, of the Convention;

RECALLING that Articles III, IV and V of the Convention provide that trade in any specimen of a species included in its Appendices requires the prior grant and presentation of the relevant document;

RECALLING that Parties are obliged, under Article VIII, paragraph 1 (b), of the Convention, to provide for the confiscation or return to the State of export of specimens traded in violation of the Convention;

NOTING that the efforts of importing countries to fulfil their obligations under Article VIII, paragraph 1 (b), may be seriously obstructed by the retrospective issuance of permits or certificates for specimens having left the exporting or re-exporting country without such documents, and that

* Amended at the 13th, 14th and 15th meetings of the Conference of the Parties.

declarations about the validity of documents that do not meet the requirements of the Convention are likely to have a similar effect;

CONSIDERING that the retrospective issuance of permits and certificates has an increasingly negative impact on the possibilities for properly enforcing the Convention and leads to the creation of loopholes for illegal trade;

CONSIDERING that Article VII, paragraph 7, of the Convention provides that under certain circumstances "a Management Authority of any State may waive the requirements of Articles III, IV and V and allow the movement without permits or certificates of specimens which form part of a travelling zoo, circus, menagerie, plant exhibition or other travelling exhibition provided that the specimens are in either of the categories specified in paragraph 2 or 5 of this Article";

DESIRING, however, that this exemption not be used to avoid the necessary measures for the control of international trade in specimens listed in the Appendices to the Convention;

RECOGNIZING that the trade in many biological samples, because of their special nature or because of the special purpose of such trade, requires expedited processing of permits and certificates to allow for the timely movement of shipments;

RECALLING that, in accordance with Article VIII, paragraph 3, Parties are required to ensure that specimens shall pass through any formalities required for trade with a minimum of delay;

RECOGNIZING that Article VII includes special provisions reducing the level of control on trade in specimens that were acquired before the provisions of the Convention applied to them and specimens that were bred in captivity or artificially propagated;

NOTING the need to develop simplified procedures that are compatible with the obligations of Parties to the Convention on Biological Diversity;

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

ESTABLISHES the following sections in the present Resolution:

- I. Regarding standardization of CITES permits and certificates
 - II. Regarding export permits and re-export certificates
 - III. Regarding import permits
 - IV. Regarding pre-Convention certificates
 - V. Regarding certificates of origin
 - VI. Regarding travelling-exhibition certificates
 - VII. Regarding phytosanitary certificates
 - VIII. Regarding permits and certificates for species subject to quotas
 - IX. Regarding permits and certificates for crocodylian specimens
 - X. Regarding permits and certificates for coral specimens
 - XI. Regarding permits and certificates for timber species included in Appendices II and III with the annotation 'Logs, sawn wood and veneer sheets'
 - XII. Regarding the use of simplified procedures to issue permits and certificates
 - XIII. Regarding retrospective issue of permits and certificates
 - XIV. Regarding acceptance and clearance of documents and security measures
 - XV. Regarding documents for sample collections covered by ATA carnets
- Annex 1 Information that should be included in CITES permits and certificates
- Annex 2 Standard CITES form; instructions and explanations
- Annex 3 Model travelling-exhibition certificate; instructions and explanations; continuation sheet

I. Regarding standardization of CITES permits and certificates

AGREES that:

- a) to fulfil the requirements of Article VI and relevant Resolutions, export and import permits, re-export and pre-Convention certificates, certificates of origin and certificates of captive breeding and artificial propagation (except where phytosanitary certificates are used for this purpose) should include all the information specified in Annex 1 of the present Resolution;
- b) Permits and certificates may be issued in paper format or electronic format provided all Parties involved have agreed with the electronic format;
- c) every form, whether issued in an electronic or paper format, should be issued in one or more of the working languages of the Convention (English, Spanish or French) and in the national language if it is not one of the working languages;
- d) every form should indicate which type of document it is (e.g. import or export permit, re-export or pre-Convention certificate, etc.);
- e) if a permit or certificate form, whether issued in an electronic or paper format includes a place for the signature of the applicant, the absence of the handwritten signature or in case of electronic forms any electronic equivalent should render the permit or certificate invalid; and
- f) if an annex is attached to a permit or certificate as an integral part of it, this and the number of pages should be clearly indicated on the permit or certificate, and each page of the annex should include the following:
 - i) the number of the permit or certificate and its date of issue; and
 - ii) the signature, handwritten, and the stamp or seal, preferably embossed, or their electronic equivalent, of the authority issuing the document; and

RECOMMENDS that:

- a) Parties wishing to modify their permit and certificate forms, to reprint existing documents or to introduce new documents, first ask the Secretariat for advice;
- b) Parties adapt the contents and, to the extent practicable, the format of their permits and certificates to the standard form attached to the present Resolution as Annex 2;
- c) Parties using or developing electronic permits and certificates, adopt the standards recommended in the [CITES electronic permitting toolkit](#);
- d) the Secretariat, subject to availability of external funding, organize the printing of permit and certificate forms on security paper for Parties that request it;
- e) to avoid abusive or fraudulent use, the Parties not use forms for their internal-trade certificates that are identical to CITES forms;
- f) for tracking and annual reporting purposes, permit and certificate numbers be limited, if possible, to 14 characters in the format:

WWxxYYYYYY/zz

where WW represents the last two digits of the year of issuance; xx represents the two-letter ISO code of the country; YYYYYY represents a six-digit serial number; and zz represents two digits or letters, or a combination of a digit and a letter, that a Party may use for national informational purposes;

- g) Parties state, on each of their permits and certificates, the purpose of the transaction using the following codes:

- T** Commercial
- Z** Zoo
- G** Botanical garden
- Q** Circus or travelling exhibition

- S** Scientific
 - H** Hunting trophy
 - P** Personal
 - M** Medical (including biomedical research)
 - E** Educational
 - N** Reintroduction or introduction into the wild
 - B** Breeding in captivity or artificial propagation
 - L** Law enforcement / judicial / forensic;
- h) The term 'hunting trophy', as used in this Resolution, means a whole animal, or a readily recognizable part or derivative of an animal, specified on any accompanying CITES permit or certificate, that:
- i) is raw, processed or manufactured;
 - ii) was legally obtained by the hunter through hunting for the hunter's personal use; and
 - iii) is being imported, exported or re-exported by or on behalf of the hunter, as part of the transfer from its country of origin, ultimately to the hunter's State of usual residence.
- i) the following codes be used to indicate the source of the specimens:
- W** Specimens taken from the wild.
 - R** Ranched specimens: specimens of animals reared in a controlled environment, taken as eggs or juveniles from the wild, where they would otherwise have had a very low probability of surviving to adulthood.
 - D** Appendix-I animals bred in captivity for commercial purposes in operations included in the Secretariat's Register, in accordance with Resolution Conf. 12.10 (Rev. CoP15), and Appendix-I plants artificially propagated for commercial purposes, as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 4, of the Convention.
 - A** Plants that are artificially propagated in accordance with Resolution Conf. 11.11 (Rev. CoP15), as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5 (specimens of species included in Appendix I that have been propagated artificially for non-commercial purposes and specimens of species included in Appendices II and III).
 - C** Animals bred in captivity in accordance with Resolution Conf. 10.16 (Rev.), as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5.
 - F** Animals born in captivity (F1 or subsequent generations) that do not fulfil the definition of 'bred in captivity' in Resolution Conf. 10.16 (Rev.), as well as parts and derivatives thereof.
 - U** Source unknown (**must be justified**)
 - I** Confiscated or seized specimens
 - O** Pre-Convention specimens;
- j) the terms and codes used on permits and certificates to indicate the type of specimen being traded conform to those provided in the Secretariat's most recent *Guidelines for the preparation and submission of CITES annual reports* and that the units of measurement used also conform to these Guidelines;
- k) all Parties consider the development and use of electronic permits and certificates;
- l) all Parties, when using paper permits and certificates, consider the use of security paper;
- m) Parties that do not already do so affix a security stamp to each permit and certificate;
- n) when a security stamp is affixed to a permit or certificate, it be cancelled by a signature and a stamp or seal, preferably embossed and the number of the stamp also be recorded on the document;

- o) when issuing permits and certificates, the Parties follow the standard nomenclatures adopted by the Conference of the Parties to indicate the names of species [see Resolution Conf. 12.11 (Rev. CoP15)];
- p) Parties that have not yet done so communicate to the Secretariat the names of the persons empowered to sign permits and certificates, as well as three specimens of their signatures, and that all the Parties communicate, within one month of any change thereto, the names of persons who have been added to the list of those already empowered to sign, the names of persons whose signatures are no longer valid and the dates the changes took effect;
- q) when the means of transport used requires a bill of lading or an air way-bill, the number of such document be stated on the permit or certificate;
- r) each Party inform the other Parties, direct or through the Secretariat, of any stricter internal measures it has taken under Article XIV, paragraph 1 (a), of the Convention, and that, when a Party is informed of this, it refrain from issuing permits and certificates that run counter to these measures;
- s) when a permit or certificate has been cancelled, lost, stolen or destroyed, the issuing Management Authority immediately inform the Management Authority of the country of destination, as well as the Secretariat regarding commercial shipments; and
- t) when a permit or certificate is issued to replace a document that has been cancelled, lost, stolen or destroyed, or that has expired, it indicate the number of the replaced document and the reason for the replacement;

II. Regarding export permits and re-export certificates

AGREES that a re-export certificate should also specify:

- a) the country of origin, the number of the export permit of the country of origin and its date of issue; and
- b) the country of last re-export, the number of the re-export certificate of that country and its date of issue;

or if the case arises:

- c) justification for the omission of any of the aforementioned information;

RECOMMENDS that:

- a) exporters be encouraged to apply for permits shortly before the time of intended export;
- b) Management Authorities require accurate information about the number or quantity of specimens to be exported under each permit and, as far as possible, avoid the issuance of permits where the numbers or quantities do not accurately reflect what will actually be exported;
- c) in cases where a replacement is requested for a permit that has not been used, the replacement be issued only if the original has been returned to the issuing authority, unless the original is reported as lost. In the latter case, the issuing Management Authority should notify the Management Authority of the country of destination that the original permit has been cancelled and replaced;
- d) if an exporter claims to have used a permit to export a smaller number or quantity of specimens than the amount authorized on the export permit, and requests another permit to export the remainder, the Management Authority obtain proof of the number or quantity already exported before issuing any new permit (such as a copy of the validated export permit or confirmation from the Management Authority of the country of destination of the number or quantity of specimens that were imported using the original permit);
- e) exported specimens and re-exported specimens not appear on the same document, unless it is clearly indicated which specimens are being exported and which re-exported;
- f) when re-export certificates are issued for specimens whose form has not changed since being imported, the unit of measure used be the same as that used on the permit or certificate accepted when they were imported;

- g) the provisions of Article III, paragraph 3, Article IV, paragraph 4, Article V, paragraph 3, and Article VI, paragraph 2, be understood to mean that an export permit or re-export certificate shall be valid for a period of no more than six months from the date on which it was granted and that it may not be accepted to authorize export, re-export or import except during the period of validity;
- h) after the expiry of the said six-month period of validity, an export permit or re-export certificate be considered as void and of no legal value whatsoever, except in the case referred to in section XI relating to timber species;
- i) no export permit or re-export certificate be issued for a specimen known to have been acquired illegally, even if it has been imported in accordance with the national legislation, unless the specimen has previously been confiscated;
- j) Parties not authorize the import of any specimen if they have reason to believe that it was not legally acquired in the country of origin;
- k) Parties verify the origin of Appendix-I specimens to avoid issuing export permits when the use is for primarily commercial purposes and the specimens did not originate in a CITES-registered breeding operation; and
- l) as far as possible, inspections of documents and shipments be conducted at the time of export. This should be regarded as essential for shipments of live animals;

AGREES that, in the case of plant specimens that cease to qualify for an exemption from the provisions of CITES under which they were exported from their country of origin, the country of origin is deemed to be the first country in which the specimens cease to qualify for the exemption; and

AGREES further that Parties may in such instances, and if considered useful, add the following text in block 5 of re-export certificates: 'Legally imported under an exemption from the provisions of CITES' and additionally it may be stated to which exemption this refers;

III. Regarding import permits

AGREES that an import permit for specimens of species included in Appendix I may carry, among other things, certification that the specimens will not be used for primarily commercial purposes and, in the case of live specimens, that the recipient has suitable facilities to house and care for them; and

RECOMMENDS that:

- a) the provisions of Article III, paragraphs 2 and 4, be understood to mean that an import permit shall be valid for a period of not more than 12 months from the date on which it was granted and that it may not be accepted to authorize import except during the period of validity; and
- b) after the expiry of the said 12-month period of validity, an import permit be considered as void and of no legal value whatsoever;

IV. Regarding pre-Convention certificates

AGREES that a pre-Convention certificate should also specify:

- a) that the specimen covered by the certificate is pre-Convention; and
- b) the date of acquisition of the specimen as defined in Resolution Conf. 13.6 adopted at the 13th meeting of the Conference of the Parties (Bangkok, 2004);

V. Regarding certificates of origin

RECOMMENDS that:

- a) certificates of origin for export of specimens of species listed in Appendix III only be issued by a designated Management Authority or by the competent authority if trade is from a State not a Party to the Convention, and that Parties not accept certificates of origin unless they are issued by such authorities;
- b) the provisions of Article V, paragraph 3, be understood to mean that a certificate of origin shall be valid for a period of not more than 12 months from the date on which it was granted,

and that it may not be accepted to authorize export or import except during the period of validity; and

- c) after the expiry of the said 12-month period of validity, a certificate of origin be considered as void and of no legal value whatsoever;

VI. Regarding travelling-exhibition certificates

RECOMMENDS that:

- a) each Party issue a travelling-exhibition certificate for CITES specimens belonging to a travelling exhibition based in its State, registered with the Management Authority and wishing to transport specimens of CITES species to other States for exhibition purposes only, on the condition that they were legally acquired and will be returned to the State in which the exhibition is based and that they were:
 - i) acquired before 1 July 1975 or before the date of inclusion of the species in any of the Appendices of the Convention;
 - ii) bred in captivity as defined in Resolution Conf. 10.16 (Rev.); or
 - iii) artificially propagated as defined in Resolution Conf. 11.11 (Rev. CoP15);
- b) travelling-exhibition certificates should be based on the model included in Annex 3 of the present Resolution. They should be printed in one or more of the working languages of the Convention (English, Spanish or French) and in the national language if it is not one of these;
- c) travelling-exhibition certificates should contain the purpose code 'Q' and include in block 5, or in another block if the model form is not used, the following language: "The specimen/s covered by this certificate may not be sold or otherwise transferred in any State other than the State in which the exhibition is based and registered. This certificate is non-transferable. If the specimen/s dies/die, is/are stolen, destroyed, lost, sold or otherwise transferred, this certificate must be immediately returned by the owner to the issuing Management Authority";
- d) a separate travelling exhibition certificate must be issued for each live animal;
- e) for travelling exhibitions of specimens other than live animals, the Management Authority should attach an inventory sheet that contains all of the information in blocks 9 to 16 of the model form for each specimen;
- f) travelling-exhibition certificates should be valid for not more than three years from the date on which they were granted to allow multiple imports, exports and re-exports of the individual specimens that they cover;
- g) Parties consider such travelling-exhibition certificates as proof that the specimens concerned have been registered with the issuing Management Authority and allow the movement of such specimens across their borders;
- h) at each border crossing, Parties endorse travelling-exhibition certificates with an authorized stamp and signature by the inspecting official and allow the certificates to remain with the specimens;
- i) Parties check travelling exhibitions closely, at the time of export/re-export and import, and note especially whether live specimens are transported and cared for in a manner that minimizes the risk of injury, damage to health or cruel treatment;
- j) Parties require that specimens be marked or identified in such a way that the authorities of each State into which an exhibition enters can verify that the travelling-exhibition certificates correspond to the specimens being imported;
- k) when, during a stay in a State, an animal in possession of an exhibition gives birth, the Management Authority of that State be notified and issue a Convention permit or certificate as appropriate;
- l) when, during a stay in a State, a travelling-exhibition certificate for a specimen is lost, stolen or accidentally destroyed, only the Management Authority which has issued the document may issue a duplicate. This duplicate paper certificate will bear the same number, if

possible, and the same date of validity as the original document, and contain the following statement: "This certificate is a true copy of the original"; and

- m) Parties include in their annual reports a list of all travelling-exhibition certificates issued in the year concerned;

VII. Regarding phytosanitary certificates

RECOMMENDS that:

- a) any Party having considered the practices governing the issue of its phytosanitary certificates for export of artificially propagated Appendix-II specimens, and having determined that such practices provide adequate assurance that the specimens are artificially propagated [as defined in Resolution Conf. 11.11 (Rev. CoP15)], may consider these documents as certificates of artificial propagation in accordance with Article VII, paragraph 5. Such certificates must include the scientific name of the species and the type and quantity of the specimens and bear a stamp, seal or their electronic equivalent, or other specific indication stating that the specimens are artificially propagated as defined by CITES;
- b) any Party using phytosanitary certificates as certificates of artificial propagation inform the Secretariat and provide copies of the certificates, stamps, seals, etc. that are used; and
- c) phytosanitary certificates be used exclusively for the purpose of export from the country of artificial propagation of the specimens concerned; and

INSTRUCTS the Secretariat to notify the Parties when any Party confirms that it issues phytosanitary certificates for export of artificially propagated plants of Appendix-II species;

VIII. Regarding permits and certificates for species subject to quotas

RECOMMENDS that:

- a) when a Party has voluntarily fixed national export quotas for specimens of species included in Appendix I, for non-commercial purposes, and/or in Appendices II and III, it inform the Secretariat of the quotas before issuing export permits and of any changes thereto as soon as they are made;
- b) each export permit issued for specimens of a species subject to an annual export quota, whether established nationally or by the Conference of the Parties, indicate the total quota that has been established for the year and include a certification that the quota is being complied with. For this purpose Parties should specify the total number or quantity of specimens already exported in the current year (including those covered by the permit in question) and the export quota for the species and specimens that are subject to the quota; and
- c) Parties send to the Secretariat copies of permits, electronic and paper, issued for species subject to quotas if so requested by the Conference of the Parties, the Standing Committee or the Secretariat;

IX. Regarding permits and certificates for crocodylian specimens

RECOMMENDS that:

- a) when trade in tagged crocodylian skins is authorized, the same information as is on the tags be given on the permit or certificate;
- b) in the case of crocodylian species subject to quotas approved by the Conference of the Parties, no permit or certificate for skins be issued before the skins are tagged in accordance with the requirements of the issuing Management Authority and their sizes are recorded;
- c) in the event of mismatches of information within a permit or certificate for crocodylian skins, the Management Authority of the importing Party immediately contact its counterpart in the exporting/re-exporting Party to establish whether this was a genuine error arising from the volume of information required by the present Resolution and Resolution Conf. 11.12 (Rev. CoP15), and that, if this is the case, every effort be made to avoid penalizing those involved in the transaction;

- d) for small crocodylian leather products, Parties consider measures to alleviate the administrative burdens associated with this trade through simplified procedures to issue permits and certificates as provided in Part XII of this Resolution; and
- e) for small crocodylian leather products, Parties that require import permits as a stricter domestic measure should review these requirements in order to determine whether they are effective in achieving the objectives of the Convention to ensure that trade in wild fauna and flora species is not detrimental to their survival;

X. Regarding permits and certificates for coral specimens

RECOMMENDS that:

- a) on permits and certificates issued to authorize trade in specimens of hard corals of the genera included in the most recent CITES list of *Coral taxa where identification to genus level is acceptable*¹, where the species cannot be readily determined, the specimens may be recorded at the genus level. This list is maintained by the Secretariat and may be amended with the concurrence of the Animals Committee;
- b) on permits and certificates for trade in specimens that are readily recognizable as coral rock [as defined in Resolution Conf. 11.10 (Rev. CoP15) Annex], where the genus cannot be readily determined, the scientific name for the specimens should be 'Scleractinia';
- c) any Party wishing to authorize export of coral rock identified to ordinate level only should, in view of the inability to make a non-detriment finding for coral rock pursuant to Article IV, paragraph 2 (a), apply the provisions of Article IV, paragraph 3;
- d) Parties that authorize export of coral rock should:
 - i) establish an annual quota for exports and communicate this quota to the Secretariat for distribution to the Parties; and
 - ii) through their Scientific Authorities, make an assessment (which would be available to the Secretariat on request), based on a monitoring programme, that such export will not affect the role that coral rock has in ecosystems affected by the extraction of such specimens;
- e) on permits and certificates for trade in worked specimens of black coral, where the species cannot be readily determined, the specimens may be recorded at the genus level and, where the genus cannot be readily determined, the scientific name for the given specimens should be 'Antipatharia'; and
- f) raw black coral and live black coral should continue to be identified in trade to species level;

XI. Regarding permits and certificates for timber species included in Appendices II and III with the annotation 'Logs, sawn wood and veneer sheets'

RECOMMENDS that the validity of the export permit or re-export certificate may be extended beyond the normal maximum of six months after the date of issue, on the condition that:

- a) the shipment has arrived in the port of final destination before the date of expiration indicated on the permit or certificate and is being held in Customs bond (i.e. is not considered as imported);
- b) the time extension does not exceed six months from the date of expiration of the permit or certificate and no previous extension has been granted;
- c) the appropriate enforcement personnel has included the date of arrival and the new date of expiration in the box relating to special conditions, or an equivalent place, on the export permit or re-export certificate, certifying the modification with an official stamp or seal and signature or their electronic equivalent;
- d) the shipment is imported for consumption from the port where it was located when the extension was approved and before the new date of expiration; and

¹ At the time of entry into force of this Resolution (23 June 2010), the most recent list had been published in Notification to the Parties No. 2010/014.

- e) a copy of the export permit or re-export certificate as amended in accordance with subparagraph c) above is sent to the country of export or re-export, allowing it to amend its annual report, and to the CITES Secretariat; and

RECOMMENDS further that any permit or certificate that indicates the complete names and addresses of the (re-)exporter and importer, in conformity with Annex 1, paragraph d), to the present Resolution, not be accepted for import into a country other than the one for which it was issued, except under the following conditions:

- a) the actual quantity of specimens exported or re-exported is included in the designated box on the permit or certificate, certified by the stamp or seal and signature of the authority that carried out the inspection at the time of export or re-export;
- b) the exact quantity referred to under paragraph a) above is imported;
- c) the number of the bill of lading of the shipment is included on the permit or certificate;
- d) the bill of lading of the shipment is presented to the Management Authority together with the original of the permit or certificate at the time of import;
- e) the import takes place within six months after the issue of the export permit or re-export certificate or within 12 months after the issue of a certificate of origin;
- f) the period of validity of the permit or certificate has not already been extended;
- g) the Management Authority of the importing country includes on the permit or certificate, in the box relating to special conditions, or an equivalent place, the following text, certified by its stamp or seal and signature:

"import into [name of country] permitted in accordance with Resolution Conf. 12.3 (Rev. CoP15) (section XI) on [date]"; and

- h) a copy of the permit or certificate as amended in accordance with paragraph g) above is sent to the country of export or re-export, allowing it to amend its annual report, and to the CITES Secretariat;

XII. Regarding the use of simplified procedures to issue permits and certificates

RECOMMENDS that:

- a) Parties use simplified procedures to issue permits and certificates to facilitate and expedite trade that will have a negligible impact, or none, on the conservation of the species concerned, e.g.:
 - i) where biological samples of the type and size specified in Annex 4 of the present Resolution are urgently required:
 - A. in the interest of an individual animal;
 - B. in the interest of the conservation of the species concerned or other species listed in the Appendices;
 - C. for judicial or law enforcement purposes;
 - D. for the control of diseases transferable between species listed in the Appendices;
or
 - E. for diagnostic or identification purposes;
 - ii) for the issuance of pre-Convention certificates in accordance with Article VII, paragraph 2;
 - iii) for the issuance of certificates of captive breeding or artificial propagation in accordance with Article VII, paragraph 5, or for the issuance of export permits or re-export certificates in accordance with Article IV for specimens referred to in Article VII, paragraph 4; and
 - iv) in other cases judged by a Management Authority to merit the use of simplified procedures;

- b) Parties, in order to simplify procedures concerning the issuance of permits and certificates under the circumstances outlined above:
 - i) maintain a register of persons and bodies that may benefit from simplified procedures, as well as the species that they may trade under the simplified procedures;
 - ii) provide to registered persons and bodies partially completed permits and certificates that remain valid for a period of up to six months for export permits, 12 months for import permits or re-export certificates, and three years for pre-Convention certificates and certificates of captive breeding or artificial propagation; and
 - iii) authorize the registered persons or bodies to enter specific information on the CITES document when the Management Authority has included in box 5, or an equivalent place, the following:
 - A. a list of the boxes that the registered persons or bodies are authorized to complete for each shipment; if the list includes scientific names, the Management Authority must have included an inventory of approved species on the face of the permit or certificate or in an attached annex;
 - B. any special conditions; and
 - C. a place for the signature, or its electronic equivalent, of the person who completed the document;
- c) concerning trade in biological samples of the type and size specified in Annex 4 of the present Resolution, where the purpose is among those specified in paragraph a) of this section, permits and certificates be accepted that were validated at the time the documents were granted, rather than at the time a shipment was exported or re-exported provided that the container bears a label, such as a Customs label, that specifies 'CITES Biological Samples' and the CITES document number; and
- d) when processing applications for the export of biological samples of the type and size and for the use specified in Annex 4 to the present Resolution, Scientific Authorities develop generic non-detriment advice that would cover multiple shipments of such biological samples, taking into account the impacts of the collection of the specimens of species included in Appendix I or II to determine whether the export or import of biological samples would be detrimental to the survival of the species;

XIII. Regarding retrospective issue of permits and certificates

RECOMMENDS that:

- a) a Management Authority of an exporting or re-exporting country:
 - i) not issue CITES permits and certificates retrospectively;
 - ii) not provide exporters, re-exporters and/or consignees in importing countries with declarations about the legality of exports or re-exports of specimens having left its country without the required CITES documents; and
 - iii) not provide exporters, re-exporters and/or consignees in importing countries with declarations about the legality of permits or certificates which at the time of export, re-export or import did not meet the requirements of the Convention;
- b) a Management Authority of an importing country, or of a country of transit or transshipment, not accept permits or certificates that were issued retrospectively;
- c) exceptions from the recommendations under a) and b) above not be made with regard to Appendix-I specimens, and be made with regard to Appendix-II and -III specimens only where the Management Authorities of both the exporting (or re-exporting) and the importing countries are, after a prompt and thorough investigation in both countries and in close consultation with each other, satisfied:
 - i) that the irregularities that have occurred are not attributable to the (re-)exporter or the importer or, in the case of specimens imported or (re-)exported as personal or household effects (for the purposes of the present Resolution this includes live pets travelling with their owner), the Management Authority, in consultation with the relevant

enforcement authority, is satisfied that there is evidence that a genuine error has been made, and that there was no attempt to deceive; and

- ii) that the export (or re-export) and import of the specimens concerned are otherwise in compliance with the Convention and with the relevant legislation of the countries of export (or re-export) and import;
- d) whenever exceptions are made:
 - i) the permit or certificate clearly indicate that it is issued retrospectively; and
 - ii) the reasons for the relaxation, which should come within the purview of paragraph c) above, are specified in the conditions on the permit or certificate and a copy sent to the Secretariat and also these be listed in the biennial report to the Secretariat;
- e) in cases where retrospective permits are issued for personal or household effects as referred to in subparagraph c) i) above, Parties make provision for penalties and restrictions on subsequent sales within the following six months to be imposed where appropriate to ensure that the power to grant exemptions from the general prohibition on the issue of retrospective permits is not abused; and
- f) the above discretion to issue permits and certificates retrospectively not be afforded to benefit repeat offenders;

XIV. Regarding acceptance and clearance of documents and security measures

RECOMMENDS that:

- a) the Parties refuse to accept permits and certificates if they have been altered (by rubbing out, deleting, scratching out, etc.), modified or crossed out, unless the alteration, modification or crossing-out has been authenticated by the stamp and signature, or its electronic equivalent, of the authority issuing the document;
- b) whenever irregularities are suspected, Parties exchange issued and/or accepted permits or certificates to verify their authenticity;
- c) when a security stamp is affixed to a paper permit or certificate, Parties refuse the document if the security stamp is not cancelled by a signature and a stamp or seal;
- d) Parties refuse to accept any permit or certificate that is invalid, including authentic documents that do not contain all the required information as specified in the present Resolution or that contain information that brings into question the validity of the permit or certificate;
- e) Parties refuse to accept permits and certificates that do not indicate the scientific name of the species concerned (including subspecies when appropriate), except in the case where:
 - i) the Conference of the Parties has agreed that the use of higher-taxon names is acceptable;
 - ii) the issuing Party can show it is well justified and has communicated the justification to the Secretariat;
 - iii) certain manufactured products contain pre-Convention specimens that can not be identified to the species level; or
 - iv) worked skins or pieces thereof of *Tupinambis* species that were imported before 1 August 2000 are being re-exported, in which case it is sufficient to use the indication *Tupinambis* spp.;
- f) Export permits and re-export certificates be endorsed, with quantity, signature and stamp, by an inspecting official, such as Customs, in the export endorsement block of the document. If the export document has not been endorsed at the time of export, the Management Authority of the importing country should liaise with the exporting country's Management Authority, considering any extenuating circumstances or documents, to determine the acceptability of the document;
- g) when a Party refuses to accept a permit or certificate, it will keep the original or electronic copy or, if this is not compliant with its national laws, it will cancel the paper document

indelibly, preferably by perforation, particularly the security stamp, or register the electronic document as cancelled;

- h) when a Party refuses to accept a permit or certificate issued for export or re-export, it immediately inform the exporting or re-exporting country;
- i) when a Party is informed that a permit or certificate it has issued for export or re-export has been refused, it take measures to ensure that the specimens in question do not enter into illegal trade;
- j) Parties ensure that, when the original of a paper permit or certificate is not used by the permittee for the trade authorized, it is returned by the permittee to the issuing Management Authority in order to prevent the illegal use of the document, and in the case of an electronic permit or certificate, notification is sent to the issuing Management Authority and the electronic permit is registered as unused; and
- k) Parties carefully check the e-mails and telefaxes they receive confirming the validity of permits, in order to ensure that the information that appears on them, including the numbers, corresponds to that in the CITES Directory;

RECOMMENDS further that Management Authorities authorize the import of vicuña cloth only if the reverse side of the cloth bears the logotype adopted by the range States of the species, which are signatories to the *Convenio para la Conservación y Manejo de la Vicuña*, and the selvages the words VICUÑA – COUNTRY OF ORIGIN² or if it is cloth containing pre-Convention wool of vicuña; and

URGES the Parties to check with the Secretariat:

- a) when they have serious doubts about the validity of permits accompanying suspect shipments; and
- b) before they accept imports of live specimens of Appendix-I species declared as bred in captivity or artificially propagated; and

XV. Regarding documents for sample collections covered by ATA carnets

RECOMMENDS that:

- a) for the purpose of the procedure described below, the term 'sample collection' refer to collections of legally acquired dead specimens, parts and derivatives of species included in Appendix II or III and of Appendix-I species bred in captivity or artificially propagated for commercial purposes, which are deemed to be Appendix-II specimens, which are not entitled to be sold or otherwise transferred, and that will cross borders for presentation purposes before returning to the country from which such movement was first authorized; and
- b) such sample collections be considered as 'in transit' and may be traded under the special provisions stipulated in Article VII, paragraph 1, as explained in Resolution Conf. 9.7 (Rev. CoP13), on the following conditions:
 - i) sample collections shall be covered by ATA carnets and be accompanied by a standard CITES permit, on which it shall be indicated that the document is a permit or certificate either for 'export', 're-export' or 'other', as appropriate, and, in addition, it shall be clearly specified that the document is issued for a 'sample collection';
 - ii) it shall be specified in block 5, or an equivalent place, that "This document covers a sample collection and is invalid unless accompanied by a valid ATA carnet. The specimen(s) covered by this certificate may not be sold or otherwise transferred whilst outside the territory of the State that issued this document." The number of the accompanying ATA carnet should be recorded and, if necessary, this may be entered by the Customs or other CITES enforcement official responsible for the endorsement of the CITES document;

² Corrected by the Secretariat after the 15th meeting of the Conference of the Parties to reflect exactly the text of the annotations in the Appendices.

included in Appendix I in captivity for commercial purposes, etc.) or, in the case of marking with microchip transponders, the microchip codes, the name of the transponder manufacturer, and, where possible, the location of the microchip in the specimen

- h) The Appendix in which the species or subspecies or population is listed. NB: This does not change even if the specimen concerned is deemed to be included in a different Appendix. For example, although specimens of Appendix-I species bred in captivity for commercial purposes are deemed to be specimens of species included in Appendix II, the species remains listed in Appendix I, and this should be specified on the permit or certificate.
- i) The source of the specimens
- j) The quantity of specimens and, if appropriate, the unit of measure used
- k) The date of issue and the date of expiry
- l) The name of the signatory and his/her handwritten signature for paper permits and certificates or its electronic equivalent for electronic permits and certificates
- m) The embossed seal or ink stamp of the Management Authority or its electronic equivalent
- n) A statement that the permit, if it covers live animals, is only valid if the transport conditions comply with the *IATA Live Animals Regulations* or, if it covers plants, with the *IATA Perishable Cargo Regulations*
- o) The registration number of the operation, attributed by the Secretariat, when the permit involves specimens of a species included in Appendix I that originate from an operation practising breeding in captivity or artificial propagation for commercial purposes (Article VII, paragraph 4), and the name of the operation when it is not the exporter
- p) The actual quantity of specimens exported, certified by the stamp or seal and signature of the authority that carried out the inspection at the time of the exportation

To be included in certificates of origin only

- q) A statement that the specimens originate in the country that issued the certificate.


Instructions and explanations

(These correspond to block numbers on the form)

1. Tick the square which corresponds to the type of document issued (export permit, re-export certificate, import permit or other). If the box "other" has been ticked, the type of document must be indicated. The original number is a unique number allocated to each document by the Management Authority.
2. For export permits and re-export certificates, the date of expiry of the document may not be more than six months after the date of issuance (one year for import permits).
3. **Complete** name and address of the importer.
- 3a. The name of the country must be written in full.
4. **Complete** name and address of the exporter/re-exporter. The name of the country must be stated. The absence of the signature of the applicant renders the permit or certificate invalid.
5. Special conditions may refer to national legislation or special conditions placed on the shipment by the issuing Management Authority. This block can also be used to justify the omission of certain information.
- 5a. The following codes should be used: **T** for commercial, **Z** for zoo, **G** for botanical garden, **Q** for circus or travelling exhibition, **S** for scientific, **H** for hunting trophy, **P** for personal, **M** for medical, **E** for education, **N** for reintroduction or introduction into the wild, **B** for breeding in captivity or artificial propagation and **L** for law enforcement / judicial / forensic.
- 5b. Indicate the number of the security stamp affixed in block 13.
6. The name, address and country of the issuing Management Authority should already be printed on the form.
- 7-8. Indicate the scientific name (genus and species, where appropriate subspecies) of the animal or plant as it appears in the Convention Appendices or the reference lists approved by the Conference of the Parties, and the common name of the animal or plant as known in the country issuing the permit.
9. Describe, as precisely as possible, the specimens entering trade (live animals, skins, flanks, wallets, shoes, etc.). If a specimen is marked (tags, identifying marks, rings, etc.), whether or not this is required by a Resolution of the Conference of the Parties (specimens originating in a ranching operation, specimens subject to quotas approved by the Conference of the Parties, specimens of Appendix-I species bred in captivity for commercial purposes, etc.), indicate the number and type of mark. The sex and age of the live animals should be recorded, if possible.
10. Enter the number of the Appendix of the Convention (I, II or III) in which the species is listed.
Use the following codes to indicate the source:
 - W** Specimens taken from the wild
 - R** Ranched specimens: specimens of animals reared in a controlled environment, taken as eggs or juveniles from the wild, where they would otherwise have had a very low probability of surviving to adulthood.
 - D** Appendix-I animals bred in captivity for commercial purposes in operations included in the Secretariat's Register, in accordance with Resolution Conf. 12.10 (Rev. CoP15), and Appendix-I plants artificially propagated for commercial purposes, as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 4, of the Convention
 - A** Plants that are artificially propagated in accordance with Resolution Conf. 11.11 (Rev. CoP15), as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5 (specimens of species included in Appendix I that have been propagated artificially for non-commercial purposes and specimens of species included in Appendices II and III)
 - C** Animals bred in captivity in accordance with Resolution Conf. 10.16 (Rev.), as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5
 - F** Animals born in captivity (F1 or subsequent generations) that do not fulfil the definition of 'bred in captivity' in Resolution Conf. 10.16 (Rev.), as well as parts and derivatives thereof
 - U** Source unknown (**must be justified**)
 - I** Confiscated or seized specimens
 - O** Pre-Convention specimens (may be used with other source codes).
11. The quantity and units indicated should conform to the most recent version of the *Guidelines for the preparation and submission of CITES annual reports*.
- 11a. Indicate the total number of specimens exported in the current calendar year (1 January to 31 December) (including those covered by the present permit) and the current annual quota for the species concerned (for example 500/1000). This should be done for the national quotas as well as for those determined by the Conference of the Parties.
12. The country of origin is the country in which the specimens were taken from the wild, bred in captivity or artificially propagated, except in the case of plant specimens that cease to qualify for an exemption from the provisions of CITES. In such instances, the country of origin is deemed to be the country in which the specimens ceased to qualify for the exemption. Indicate the number of the permit or certificate of the exporting country and the date of issuance. If all or part of the information is not known, this should be justified in block 5. This block must only be completed in case of re-exports;
- 12a. The country of last re-export is the country from which the specimens were re-exported before entering the country in which the present document is issued. Enter the number of the re-export certificate of the country of last re-export and its date of issuance. If all or part of the information is not known, this should be justified in block 5. This block must only be completed in case of re-export of specimens previously re-exported.
- 12b. The "No. of the operation" is the number of the registered captive-breeding or artificial propagation operation. The "date of acquisition" is defined in Resolution Conf. 13.6 and is required only for pre-Convention specimens.
13. To be completed by the official who issues the permit. The name of the official must be written in full. The security stamp must be affixed in this block and must be cancelled by the signature of the issuing official and a stamp or seal. The seal, signature and security-stamp number should be clearly legible.
14. To be completed by the official who inspects the shipment at the time of export or re-export. Enter the quantities of specimens actually exported or re-exported. Strike out the unused blocks.
15. Enter the number of the bill of lading or air way-bill if the method of transport used requires the use of such a document.

The document must be written in one of the three working languages of the Convention (English, Spanish or French) or must include a full translation into one of these three languages. Exported and re-exported specimens should not appear on the same document unless it is clearly indicated which specimens are being exported and which re-exported.

AFTER USE THIS DOCUMENT MUST BE RETURNED TO A MANAGEMENT AUTHORITY OF THE IMPORTING COUNTRY.

 CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA		TRAVELLING-EXHIBITION CERTIFICATE	
		Original	
		1. Certificate no.	2. Valid until
3. Owner of specimen(s) (name, permanent address and country of registration)		4. Name, address, national seal/stamp and country of issuing Management Authority	
<hr/> Signature of owner			
5. Special conditions: <ul style="list-style-type: none"> a) Valid for multiple cross-border movements. Owner to retain original form b) The specimen/s covered by this certificate may not be sold or otherwise transferred in any State other than the State in which the exhibition is based and registered. This certificate is non-transferable. If the specimen/s dies/die, is/are stolen, destroyed, lost, sold or otherwise transferred, this certificate must be immediately returned by the owner to the issuing Management Authority c) This certificate is not valid unless accompanied by a continuation sheet If for live animals, this certificate is valid only if the transport conditions comply with the <i>IATA Live Animals Regulations</i> , if for live plants, with the <i>IATA Perishable Cargo Regulations</i>			
6. Country of import Various	7. Purpose of the transaction Q	8. Security stamp no.	
9. Scientific name (genus and species) and common name of species	10. Description of specimen/s, including identifying marks or numbers, age, sex	11. Quantity	
		12. Appendix no. and source	
13. Country of origin	14. Permit no. and date	15. Exhibition registration number	16. Date of acquisition, if pre-Convention
17. This certificate is issued by:			
<hr/> Place		<hr/> Date	<hr/> Security stamp, signature and official seal
18. Additional conditions			
19. Customs endorsement (see Continuation sheet)			

TRAVELLING-EXHIBITION CERTIFICATE No.

Instructions and explanations

(These correspond to the block numbers on the form)

1. A unique number should be generated by the issuing Management Authority for the certificate.
2. The date of expiry of the document may not be more than three years after the date of issuance.
3. Complete the full name, permanent address and country of the owner of the specimen covered by the certificate. Absence of the signature of the owner renders the certificate invalid.
4. The name, address and country of the issuing Management Authority should already be pre-printed on the form.
5. This block has been pre-printed to indicate the validity of the certificate for multiple cross-border movements of the specimen/s with its/their exhibition for exhibition purposes only and to clarify that the certificate is not to be collected but is to remain with the specimen/owner. This block also can be used to justify the omission of certain information.
6. This block has been pre-printed to indicate that cross-border movement is permitted to any country accepting this certificate as a matter of national law.
7. This block has been pre-printed with the code Q for circuses and travelling exhibitions.
8. Indicate the number of the security stamp affixed in block 17.
9. Indicate the scientific name (genus and species, where appropriate subspecies) of the species as it appears in the Convention Appendices or the reference lists approved by the Conference of the Parties, and the common name as known in the country issuing the certificate.
10. Describe, as precisely as possible, the specimen/s covered by the certificate, including identifying marks (tags, rings, unique markings, etc.) sufficient to permit the authorities of the Party into which the exhibition enters to verify that the certificate corresponds to the specimen/s covered. The sex and age, at the time of the issuance of the certificate, should be recorded, where possible.
11. Indicate the total number of specimens. In the case of live animals it should normally be one. If more than one specimen, state "see attached inventory".
12. Enter the number of the Appendix of the Convention (I, II, or III) in which the species is listed. Use the codes below to indicate the source. This certificate may not be used for specimens with source code **W**, **R**, **F** or **U** unless they are pre-Convention specimens and the code **O** is also used.
 - W** Specimens taken from the wild
 - R** Ratched specimens: specimens of animals reared in a controlled environment, taken as eggs or juveniles from the wild, where they would otherwise have had a very low probability of surviving to adulthood.
 - A** Plants that are artificially propagated in accordance with Resolution Conf. 11.11 (Rev. CoP15), as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5, of the Convention (specimens of species included in Appendix I that have been propagated artificially for non-commercial purposes and specimens of species included in Appendices II and III)
 - C** Animals bred in captivity in accordance with Resolution Conf. 10.16 (Rev.) and exported under the provisions of Article VII, paragraph 5
 - F** Animals born in captivity (F1 or subsequent generations) that do not fulfil the definition of "bred in captivity" in Resolution Conf. 10.16 (Rev.)
 - U** Source unknown (must be justified)
 - O** Pre-Convention specimens (may be used in conjunction with any other code).
13. The country of origin is the country in which the specimens were taken from the wild or bred in captivity.
14. Indicate the number of the export permit of the country of origin and the date of issuance. If all or part of that information is not known, this should be justified in block 18.
15. This block must contain the exhibition registration number.
16. Enter the date of acquisition only for pre-Convention specimens.
17. To be completed by the official who issues the certificate. A certificate may only be issued by the Management Authority of the country where an exhibition is based and only when the owner of the exhibition has registered full details of the specimen with that Management Authority. The name of the issuing official must be written in full. The security stamp must be affixed in this block and must be cancelled by the signature of the issuing official and a stamp or seal. The seal, signature and security stamp number should be clearly legible.
18. This block may be used to refer to national legislation or additional special conditions placed on the cross-border movement by the issuing Management Authority.
19. This block has been pre-printed to refer to the attached Continuation Sheet, which should indicate all cross-border movements.

SUBJECT TO 5 ABOVE, UPON EXPIRATION, THIS DOCUMENT MUST BE RETURNED TO THE ISSUING MANAGEMENT AUTHORITY.



**CONVENTION ON
INTERNATIONAL TRADE IN
ENDANGERED SPECIES OF
WILD FAUNA AND FLORA**

**TRAVELLING-EXHIBITION CERTIFICATE
CONTINUATION SHEET**

Page _____ of _____

1. Original certificate no.

4. Name, address, national seal/stamp and country of Management Authority

8. Security stamp no.

17. This certificate is issued by:

Place		Date		Security stamp, signature and official seal			
Port of export or re-export	Date	Signature	Official stamp	Port of export or re-export	Date	Signature	Official stamp
Port of export or re-export	Date	Signature	Official stamp	Port of export or re-export	Date	Signature	Official stamp
Port of export or re-export	Date	Signature	Official stamp	Port of export or re-export	Date	Signature	Official stamp
Port of export or re-export	Date	Signature	Official stamp	Port of export or re-export	Date	Signature	Official stamp
Port of export or re-export	Date	Signature	Official stamp	Port of export or re-export	Date	Signature	Official stamp

Annex 4

Types of biological samples and their use

Type of sample	Typical size of sample	Use of sample
blood, liquid	drops or 5 ml of whole blood in a tube with anticoagulant; may deteriorate in 36 hours	haematology and standard biochemical tests to diagnose disease; taxonomic research; biomedical research
blood, dry (smear)	a drop of blood spread on a microscope slide, usually fixed with chemical fixative	blood counts and screening for disease parasites
blood, clotted (serum)	5 ml of blood in tube with or without a blood clot	serology and detection of antibodies for evidence of disease; biomedical research
tissues, fixed	5 mm ³ pieces of tissues in a fixative	histology and electron microscopy to detect signs of disease; taxonomic research; biomedical research
tissues, fresh (excluding ova, sperm and embryos)	5 mm ³ pieces of tissues, sometimes frozen	microbiology and toxicology to detect organisms and poisons; taxonomic research; biomedical research
swabs	tiny pieces of tissue in a tube on a swab	growing bacteria, fungi, etc. to diagnose disease
hair, skin, feathers, scales	small, sometimes tiny pieces of skin surface in a tube (up to 10 ml in volume) with or without fixative	genetic and forensic tests and detection of parasites and pathogens and other tests
cell lines and tissue cultures	no limitation of sample size	cell lines are artificial products cultured either as primary or continuous cell lines that are used extensively in testing the production of vaccines or other medical products and taxonomic research (e.g. chromosome studies and extraction of DNA)
DNA	small amounts of blood (up to 5 ml), hair, feather follicle, muscle and organ tissue (e.g. liver, heart, etc.), purified DNA, etc.	sex determination; identification; forensic investigations; taxonomic research; biomedical research
secretions, (saliva, venom, milk)	1-5 ml in vials	phylogenetic research, production of anti-venom, biomedical research