IRB Institutional Review Board

#10
Consent Process

As described in the *Belmont Report*, consent must be (1) informed, (2) understood, and (3) voluntary. These are the hallmarks of consent and provide respect for research subjects by honoring their autonomy. Informed consent is not just a form or a signature, but a process of information exchange that includes subject recruitment materials, verbal instructions, written materials, and question and answer sessions. The IRB and investigators share responsibility for ensuring that the informed consent process is adequate. Rather than an endpoint, the consent form should be the basis for a meaningful exchange between the investigator and the subject.

The consent form, or information sheet (an unsigned consent document), serves as a written summary of the exact information that is presented to a prospective subject. The investigator is responsible for ensuring that informed consent is obtained from each research subject before the subject participates in the research study. It also serves as a useful reference for both the subject and the investigator.

Elements of Consent

Federal regulations on informed consent stipulate eight basic elements of consent, and note six additional elements that may be added to a consent form when appropriate. The IRB has developed a format (see LLNL's Standard Format for Consent Documents) that incorporates these informed consent regulations into a consent document. The consent document must present all necessary information to the prospective subject in as clear and easily readable a manner as possible (in terms that are understandable to someone with an eighth-grade education).

General requirements for informed consent 45 CFR 46, section 4.116

(a) Basic elements of informed consent. Except as provided in paragraph (c) or (d) of this section, in seeking informed consent the following information shall be provided to each subject:

(1) A statement that the study involves research, an explanation of the purposes of the research and the expected duration of the subject's participation, a description of the procedures to be followed, and identification of any procedures which are experimental;

(2) A description of any reasonably foreseeable risks or discomforts to the subject;

(3) A description of any benefits to the subject or to others which may reasonably be expected from the research;

(4) A disclosure of appropriate alternative procedures or courses of treatment, if any, that might be advantageous to the subject;

(5) A statement describing the extent, if any, to which confidentiality of records identifying the subject will be maintained;

(6) For research involving more than minimal risk, an explanation as to whether any compensation and an explanation as to whether any medical treatments are available if injury occurs and, if so, what they consist of, or where further information may be obtained;

(7) An explanation of whom to contact for answers to pertinent questions about the research and research subjects' rights, and whom to contact in the event of a research-related injury to the subject; and

(8) A statement that participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits to which the subject is otherwise entitled.

(b) Additional elements of informed consent. When appropriate, one or more of the following elements of information shall also be provided to each subject:

(1) A statement that the particular treatment or procedure may involve risks to the subject (or to the embryo or fetus, if the subject is or may become pregnant) which are currently unforeseeable;
(2) Anticipated circumstances under which the subject's participation may be terminated by the investigator without regard to the subject's consent;
(3) Any additional costs to the subject that may result from participation in the research;
(4) The consequences of a subject's decision to withdraw from the research and procedures for orderly termination of participation by the subject;
(5) A statement that significant new findings developed during the course of the research which may relate to the subject's willingness to continue participation will be provided to the subject; and
(6) The approximate number of subjects involved in the study.

Obtaining Consent

Investigators should give careful consideration to the process whereby consent is obtained. This should include considerations of how, when, and by whom consent will be obtained. Considerations regarding any special subject population should be addressed, as well.

Children

Federal law defines children as "persons who have not attained the legal age for consent . . . under the applicable law of the jurisdiction." In California, the legal age for consent is 18. When a child is the subject of research, the IRB must determine whether adequate provisions are made for soliciting the assent of the child, as well as the permission of the child's parent or legal guardian. Assent and permission are defined as follows:

> **Assent**—a child's affirmative agreement to participate in research. Failure to object, absent affirmative agreement, should not be construed as assent. In general, children under the age of 7 are considered incapable of providing assent. Children between the ages of 7 and 12 are generally considered capable of providing assent, depending on the nature of the research and the individual child's maturity and psychological state. The assent process for children in this age group should be simplified so it is comprehensible to the children. Children who are at least 13 years old can generally provide assent in a full and meaningful way.
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> In California, a child remains a minor until age 18 or upon marriage. Pregnancy does not confer adult status. The regulations permit children, with IRB approval, to consent on their own behalf if the research involves a treatment for which a child's consent is permissible under applicable law (e.g., use of contraceptives, treatment for venereal disease or drug abuse).
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> If a subject under the age of 18 is legally emancipated, he/she may consent to participate in research without the permission of a parent or guardian.
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> The child's assent is required in all research where the subject has the capacity to comprehend aspects of the study. The assent process assures an element of understanding, cooperation, and a feeling of inclusion on the part of the child and illustrates the investigator's respect for the rights and dignity of the child in the context of research.

Investigators should remember that a child's mere refusal to object to participation in research should not be construed as assent. Out of respect for children as developing persons, they should be asked if they wish to participate in the research, particularly if (1) the research does not involve interventions likely to benefit them and (2) the children can comprehend and appreciate what it means to be a volunteer for the benefit of others.

Parental/Legal Guardian permission—Current regulations tend to avoid the term "consent" when one person grants approval for another to participate in research. Parents/ legal guardians, or subject's legally authorized representative's permission therefore grant "permission" for children to participate in research (45 CFR 46.408). The "permission" form is a consent document and should follow all applicable requirements for informed consent as outlined in this section.

Whenever possible, the permission of both parents/legal guardians should be obtained; however, current federal regulations do not require permission from both parents in all research situations. In general, the risk to the child and the prospect of direct benefit for the child as a research subject determine whether single parental/guardian permission may be permitted. If the research involves no greater than minimal risk, permission of only one parent is sufficient [45 CFR 46.404]. If the research involves greater than minimal risk, consent of both parents must be obtained unless one parent is deceased, unknown, incompetent, not reasonably available, or when only one parent has the legal responsibility for the care and custody of the child [45 CFR 46.408(b)]. Investigators should obtain written permission from the parent/guardian prior to contacting a child for participation in research.

Non-English-speaking subjects

If the study will include non-English speaking subjects, investigators should discuss the use of translators in the consent process and a copy of the translated Consent Form or information sheet should be submitted with the application.

Subjects unable to consent for themselves

For studies involving subjects who cannot give signed or even verbal consent for themselves (e.g., young children, mentally handicapped persons, unconscious patients) the IRB may waive this requirement if sufficient justification for use of the particular subject group is presented and if appropriate measures for obtaining consent from a legally authorized representative or a relative and/or subject advocate are followed. Office for Human Research Protections (OHRP) has reminded the IRBs of the mandate for obtaining legally effective informed consent prospectively from each research subject or the subject's legally authorized representative. California law does not allow for the waiver of consent in emergency research settings.

Waiver of Informed Consent

Written informed consent is a basic principle in the protection of human subjects. Therefore, federal regulations allow the IRB to waive or alter the requirements only under extraordinary conditions. As a result, waivers of informed consent are one of the most misunderstood provisions of the federal regulations. There is often confusion as to whether an investigator is requesting a waiver of documentation of informed consent or a waiver to all or part of the consent process.

The IRB may only grant a waiver of or modification to the informed consent process by a vote of the full Board. Therefore, the IRB may not approve a request for waiver or modification of the informed consent process through the process of expedited review.

Waiver of documentation of informed consent

The federal regulations allow the IRB to waive the requirement for the investigator to obtain a signed consent form if it finds that either (1) the only record linking the subject and the research would be the consent document, and the principal risk would be potential harm resulting from a breach of confidentiality or (2) the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.

If an investigator requests a waiver of signed consent, then the application must provide a written justification for doing so.

As the federal regulations note, "in cases where the documentation requirement is waived, the IRB may require the investigator to provide subjects with a written statement regarding the research." The IRB often requires the use of such a written statement, in the form of an information sheet that includes most or all of the same elements as a consent form but does not require the signature of the subject.

Waiver or alteration of informed consent

The IRB may approve a consent procedure that does not include or that alters some or all of the elements of informed consent, or waives the requirement to document informed consent provided one of the following sets of conditions exists and is documented:

1. The research or demonstration project is conducted by or subject to the approval of state or local government officials and is designed to study, evaluate, or otherwise examine (a) programs under the Social Security Act, or other public benefit or service programs, (b) procedures for obtaining benefits or services under those programs, (c) possible changes in or alternatives to those programs or procedures, or possible changes in methods or levels of payment for benefits or services under those programs, and (d) the research could not practicably be carried out without the waiver or alteration.
2. The IRB may also grant a waiver if the research meets all of the following conditions: (a) the research involves no more than minimal risk to the subjects; (b) the waiver or alteration will not adversely affect the rights and welfare of the subjects; and (c) the research could not practicably be carried out without the waiver or alteration and, whenever appropriate, the subjects will be provided with additional pertinent information after participation.

> ***Note:*** *Federal regulations do not allow a waiver of informed consent because conditions make it difficult to enroll subjects into the research.*

Use of a Collaborating Institution's Consent Form

In some cases, an LLNL investigator may wish to conduct research that will be carried out at another study site where that site's institutional review board has different standards for consent documentation. In such cases, the LLNL IRB will consider a request to approve use of the other IRB's approved consent form or information sheet, as long as it satisfies the federal requirements for informed consent. Additionally, the LLNL IRB expects that collaborators will note LLNL's involvement in the study, usually under the section on the purpose and background of the study.

Deception or Withholding Information

Special considerations are required when deception or incomplete disclosure is an integral part of the research. The requirements for complete informed consent strongly favor comprehensive, honest, and understandable disclosure of all elements of the subject's participation in research. There are times, however, when investigators plan to withhold information about the real purpose of the study or purposely give subjects false information about some aspect of the research. As a result, subjects cannot prospectively give fully informed consent. Minor deception, such as withholding specific points of interest in an attempt to prevent a bias in the results can be acceptable, provided the subject is fully debriefed after participation. Risks stemming from major deception, such as leading a subject to believe that s/he has committed a crime or has a disease, are more problematic and must be clearly counterbalanced by the benefits of the research.

> ***Note:*** *Incomplete disclosure or the use of deception cannot be used as a means to secure the participation of subjects in research. The IRB will not approve research that entails more than minimal risk and withholds information that is material to the subject's decision to participate in the study.*

For the IRB to adequately review the research, investigators should justify, in detail, in the protocol, the reasons for deceiving or withholding information from subjects, including an explanation of (1) the necessity for deceiving subjects, (2) how the potential benefits of the research justify the use of deception, and (3) how the investigators will conduct the debriefing. In addition, investigators should include a debriefing script or statement that indicates the information subjects will receive regarding their participation in the research.

LLNL's Standard Format for Consent Documents

Whenever a consent form or an information sheet is to be used, the following format should be followed, with adaptations as appropriate. Though variations may be accepted, provided that all required elements of consent are included, the following format is recommended and preferred by the LLNL IRB. This format was developed to (1) satisfy federal and institutional informed consent requirements and (2) encourage the construction of a consent document that presents all necessary information in a clear and easily readable manner.

General Information

Delays in IRB approval commonly result from the submission of an inadequate consent form. The following guidelines are meant to assist you with the basic format of your consent form.

- **Eighth-grade reading level**—The primary goal of a consent form is to provide all required information about a study in language and format that is easily comprehensible, and presented at the most likely level of understanding of the subject population. For most studies, the consent form should be written at an eighth-grade reading level. Everyday vocabulary and simple sentence structure should be used throughout the form.
- **Lay language**—Unless the subjects are themselves medical professionals, scientific or technical terms should either be replaced with or defined in lay language. For example, "blood draw" is preferable to "venipuncture" and "x-ray" to "radiograph."
- **Non-legalistic language**—Legalistic sounding language such as "You hereby agree," "You certify that," "You, the undersigned, do acknowledge that," should not be used. Also, any phrases similar to the following should not be used: "You understand that," "You realize that," "You have been told that," "It has been explained to me that." Not only do these phrases not ensure a subject's comprehension but they lend the appearance of a legal document to the consent form.
- **Consistent use of person**—The person in which the form is written should be used consistently throughout. The IRB recommends that the form be written in the second person of the subject, that is, "You have been asked to participate in a research study."
- **Page numbering and date**—As a record-keeping aid for the study subjects, the IRB members/staff, and the investigators, each page of the consent form should be numbered (preferably "1 of 2," "2 of 2"). In addition, the footer of each page of the consent form should include the version date of the consent form.
- **Correct spelling and grammar**—The entire form should be carefully proofread for correct spelling and grammar before it is submitted to the IRB for review.

Basic Elements of the Consent Form

- **I. Study Title**
- **II. Purpose and Background**
- **III. Procedure**
- **IV. Risks and/or Discomforts**
- **V. Benefits**
- **VI. Alternatives**
- **VII. Financial Considerations**
- **VIII. Questions**
- **IX. Consent**
- **X. Signature Section**

Study Title

Reference to LLNL, and that a research project is being discussed, should be included in the consent form heading. For example:

LAWRENCE LIVERMORE NATIONAL LABORATORY CONSENT TO BE A RESEARCH SUBJECT
or,
LAWRENCE LIVERMORE NATIONAL LABORATORY CONSENT TO PARTICIPATE IN A RESEARCH STUDY

The study title must be included in the heading of the form. If the official title is technical and difficult to understand, a simplified non-technical title should be used in addition to the official title. The IRB protocol number is not required but may be included in the footer.

If a study has more than one consent form, each form should be labeled or titled appropriately, and the same references used within the protocol.

II. Purpose and background

This section should present the introduction to the study, indicating who is conducting the research, stating the aim of the study, giving a brief summary of the background or reason for the project, and explaining why the individual has been asked to participate. The reason a person has been asked to participate should be simply, but specifically stated (e.g., "because you have periodontal pockets around your teeth," "because you are a healthy person") and should not include a discussion of the inclusion/exclusion criteria. If an investigational device is being used in the study, this should be mentioned in this section and the device should be named.

This section should **not** begin with phrases similar to "You agree to participate" because the prospective subject has not yet had a chance to read the form, and could not yet make an informed decision about whether or not to participate. Rather, this section should indicate that the individual is being "asked," rather than "chosen" or "invited" to participate, because words like "chosen" or "invited" have connotations that are not necessarily those associated with being a participant in a research study. By the same token, if the study involves an investigational device, this should be referred to as "investigational" or "experimental" rather than "new," because the word "new" implies that something is automatically better.

III. Procedures

Each procedure should be listed, preferably in the order in which it occurs, and discussed in a separately numbered paragraph. If the study involves screening procedures, these should be mentioned first and identified as tests that will determine eligibility to participate in the study. This section should clearly state what will be done to the individual as a result of participation in the study, and, where appropriate, how this differs from standard treatment or what would happen to the individual if he/she did not participate in the study.

If a standard medical procedure is being done as part of the study, it should not be referred to as "standard" or "routine," because this could easily imply that the procedure would be done anyway for clinical reasons. Rather, what should be conveyed is that this procedure is an extra laboratory test that is commonly done for clinical purposes, but is being done here for research purposes.

Amounts of blood or tissue to be taken for study purposes should be specified using lay equivalents (e.g., teaspoons, ounces) for metric terms.

The number of times a procedure will be done, the time involved for each procedure, and the total amount of time for participation in the study should be specified. The location(s) where the procedures will be done should also be stated.

IV. Risks and/or Discomforts

The risks and/or possible discomforts of all study procedures should be listed and explained in this section. It is best to describe the risks of each procedure in a separate point and arrange them according to severity and the likelihood of occurrence. Where appropriate, the precautions that will be taken to avoid certain side effects or outcomes from occurring should be indicated and what will be done should they occur. The following four risk elements should be discussed, as appropriate:

1. **Likelihood of risks**—To the extent possible, consent forms should characterize the likelihood of risks using words like "likely," "frequent," "occasional," and "rare." When using these words, it might be helpful to define them using percentages. For example, "likely" risks could be expected to affect more than 50% of subjects; "frequent" risks could affect 10–50% of subjects; "occasional" events could affect 1–10% of subjects; and "rare" events would affect less than 1% of subjects. Because of the difficulty of quantifying risks, and because consent forms should emphasize the most important risks as well as the most frequent risks, the exact wording and organization of the discussion of risks must be adjusted for each individual study.

2. **Injuries resulting from participation in a study**—Another risk for any biomedical study is that of injury due to participation in the study. If a protocol involves more than minimal risk and human subject contact is initiated by the LLNL investigator, then the consent form must contain an explanation of any compensation and/or medical treatment that would be available if an injury or illness occurs. The following examples are provided as guidance only. Injury compensation statements on consent forms for greater than minimal risk studies will be reviewed by the IRB on a case-by-case basis.

   Example 1: *Lawrence Livermore National Security, LLC, (LLNS) will provide to any injured subject any and all standard medical treatment reasonably necessary for any injury or illness that a human subject suffers as a direct result of participation in an authorized LLNS activity covered by LLNS policy on the protection of human subjects in research or reimburse the subject for the costs of such treatment except when the injury or illness is a consequence of a medical research procedure that is designed to benefit the subject directly. For further information about this, please call the IRB Office at (925) 422-0260.*

   Example 2: *If you are injured as a result of Lawrence Livermore National Security, LLC, (LLNS) employee negligence or misconduct, you may submit an administrative claim to the LLNL Risk Manager and pursue your remedies at law. LLNS will not provide free medical treatment or any other form of remedial compensation if LLNS employees have conducted themselves properly and have not acted negligently during this experimental process.*

   If a greater than minimal risk protocol includes research subjects who are also LLNS employees, the Principal Investigator (PI) should include the following statement on the consent form:

Example 3: *In the event of an injury or illness incurred by you as a result of your participation in the experiment, you will be covered by LLNL Worker's Compensation. For further information about this, call the Institutional Review Board Office at (925) 422-0260 or write: IRB Office, Lawrence Livermore National Laboratory, P.O. Box 808, L-041, Livermore, CA 94550.*

The following example is appropriate for greater than minimal risk protocols that are industry-sponsored (Work for Others, CRADA, etc.):

Example 4: *If you are injured as a result of being in this study, standard medical treatment will be available. The costs of such treatment may be covered by the Lawrence Livermore National Security, LLC, (LLNS) or by the study sponsor, [sponsor's name], depending upon a number of factors. LLNS and the sponsor do not normally provide any other form of compensation for injury. For further information about this, call the IRB Office at (925) 422-0260 or write: Institutional Review Board Office, Lawrence Livermore National Laboratory, PO Box 808, L-041, Livermore, CA 94550.*

> ***Note:*** *If the industry sponsor's indemnification policy is different from LLNS' and/or the industry sponsor does not wish to include its name in the LLNS injury compensation statement, then other options are available. The sponsor's name may be deleted entirely from the injury compensation statement or a brief paragraph may be added below and separate from the LLNS statement informing the subject of the sponsor's policy. Please note, however, that any description of the sponsor's policy should state what the sponsor will cover, not what it will not cover. Additionally, a sponsor's statement should not make reference to third party carriers, government programs, or lost wages.*

3. **Privacy and confidentiality**—Because one of the risks of participating in research is a loss of privacy, a discussion of confidentiality issues should be included in the Risks section. The confidentiality discussion should begin with this statement: "Participation in research may mean a loss of privacy." The consent form may then proceed to briefly describe how the confidentiality of private information will be protected, i.e., coding of records, limiting access to the study records, not using any individual identifies in publications or reports resulting from the study.

   For studies involving FDA-regulated products, officials from the sponsoring company and the FDA have at least some limited right to review individual records; subjects in such studies must be forewarned about this intrusion into their privacy.

For all statements regarding confidentiality of research records, keep in mind that there is no legal privilege between investigator and subject like the one between physician and patient or counselor and client. Thus, a guarantee of complete confidentiality, or "strictest confidentiality," should not be given or implied. One should always state instead that confidentiality will be protected "as far as is possible" or "as far as is possible under the law."

> ***Note:*** *The one way to protect research records from subpoena is through a Federal Certificate of Confidentiality. More information about this certificate may be obtained by contacting the federal funding agency or by calling the IRB office. If such a certificate is obtained, it is recommended that the consent briefly discuss the added degree of protection that this certificate provides.*

4. **New information**—Federal regulations require the inclusion of a separate statement indicating that if new information that may affect a subject's willingness to continue participation (e.g., changes to the risk/benefit ratio or new alternatives to participation) develops during the course of the study, the subject will be promptly informed and may then decide whether to continue participation in the study. The IRB will advise the investigator whether or not subjects should be asked to sign a revised consent form containing the new information.

V. Benefits

Any potential direct benefits to the subject should be described first, followed by potential general benefits (e.g., to the group of subjects to which the individual belongs, to medical knowledge, etc.). The IRB recommends that a description of possible direct benefits be qualified with the phrase, ". . . but this cannot be guaranteed." If there is no direct benefit to the subject anticipated from the study, this should be stated at the beginning of the section.

The FDA recommends that possible benefits such as medical or societal benefits resulting from a research study be considered separately from payment for participation in the study. The IRB has adopted this recommendation. Thus, the discussion of payment or reimbursement should be separate from the benefits statement and placed in the section addressing financial considerations.

VI. Alternatives

This section should discuss any alternatives to participation in the study. This can be a short statement, but it should make clear the possible choices (e.g., no participation, or some or all of the protocol treatment, but without participation in the study, etc.) that are available if the individual chooses not to participate in the study. If the study involves only normal, healthy volunteers, and thus the only alternative is to decline participation in the study, this need not be mentioned in a separate section because the individual's right to choose not to participate will be made clear in the last section of the form.

VII. Financial Considerations

Costs/Financial Considerations

When participation in the study may result in any costs whatsoever to the subjects, clear information must be provided in the consent form regarding these costs. If there are no costs to the subject, this should be clearly stated as well.

If any real or potential financial conflicts of interest have been identified regarding the research activity, that information, as it affects the subject's decision to participate, should be included in this section.

Reimbursement/Payment

When referring to money that subjects will receive in return for participation in a study, either "reimbursement" or "payment" may be used. However, the term "compensation" should not be used because it is used on consent forms to designate compensation for injury. Investigators should avoid connotations of undue influence to participate or that the subject is being employed by the investigator. Rather, the sense should be that subjects will be reimbursed for their time, travel expenses, and the inconvenience of being a research subject.

This section should state the total dollar amount that the subject will be paid for participation in the study, and should give any other relevant information such as pro-rating if a subject does not complete the study, or bonus payment at the end of the study. If appropriate, a payment schedule should be included in this section. Subjects should not be required to complete the entire study in order to be reimbursed and bonus payments for study completion should be modest.

Subjects should be informed how payment will be made (e.g., in cash, by check, or credit card) and when they will be paid (e.g., immediately after the interview, approximately six weeks after individual completion of the study). It is important that this information be clear and complete.

Payments for research participation in excess of $600 per calendar year are considered taxable income. If subjects will be paid more than $600 in a calendar year, the Reimbursement section should explain that LLNL will request the subject's Social Security number in order to report this income to the IRS.

If there will be no payment or reimbursement to subjects for study participation, this information should be stated in this section.

VIII. Questions

This section should provide contact information for the subject in case there are questions about the study. The principal investigator's name and phone number must be included in this section as subjects often wish to contact the person who is supervising the project. The IRB Office contact information should also be provided. Blank lines to be filled in later may be included for additional contact persons. If the person explaining the study and obtaining consent is not the principal investigator, the blank lines in this section may be filled in with that person's name, and telephone number, if different, at the time consent is obtained.

IX. Consent

There are three aspects of consent:

1. **Receipt of consent form and Experimental Subject's Bill of Rights**—This section should state that the subject has been given (not just offered) a copy of the consent form and, if it is a biomedical study, a copy of the Experimental Subject's Bill of Rights. The current LLNL version of the Bill of Rights should be attached to the consent form.

   While California law requires that the Experimental Subject's Bill of Rights be given only to subjects of biomedical research, the LLNL IRB contact information is given in the LLNL Bill of Rights that subjects in all types of studies should receive. Therefore, for non-biomedical studies, either the Bill of Rights should be given to each participant, or the paragraph with the IRB contact information should be included in the consent form.

2. **Voluntary nature of participation in research**—This section should state that participation in research is voluntary, and explain the individual's right to decline to participate, or withdraw from the study at any time. If the subjects are patients, students, or employees, a phrase may be added indicating that refusal or withdrawal will be without jeopardy to status or career.

   The investigator may also wish to advise subjects that they may be withdrawn from the study if the investigator deems it in the best medical interests of the subject or for other reasons that should be specified (e.g., failure to keep appointments).

   Because communicating the voluntary nature of consent is so important, the IRB recommends that the statement to that effect be in capital letters, and the section be placed at the end of the form, near the signature section, for emphasis.

3. **Consent to participate**—In this section, the Board usually discourages wording such as "You have read this form and understand it; based on this understanding, you hereby agree to participate," because this does not guarantee an individual's comprehension, legally or otherwise. Rather, it is recommended that investigators simply state that if the person wishes to participate in the study, he or she should sign the form; signature will then indicate agreement to participate.

X. Signature Section

Provide the following signature lines, as applicable, at the end of the consent form:

- **Signature of subject**—Unless a waiver of signed consent (i.e., use of an Information Sheet rather than a consent form) is approved by the IRB, this should include lines for the subject's printed name, his or her signature, and the date of signature.
- **Signature of person obtaining consent**—To provide subjects with a record of who explained the study to them, the consent form should include a signature line for the specific individual obtaining consent. In signing on this line, the individual is attesting that the requirements for informed consent have been satisfied.
- **Third-party signatures**—If the study involves subjects who cannot give consent for themselves, and the IRB accepts the justification for their inclusion in the study, a separate, appropriately worded and labeled signature section must be added to the consent form. For studies involving minors, this signature line will be for the parent(s) or guardian(s). In other studies, where a legally authorized representative will give consent for the subject, an appropriately labeled signature line should be used.

Additional Elements of Informed Consent

Per 45 CFR 46.116(b), several additional pieces of information are required when, in the judgment of the IRB, they are appropriate. These additional elements are as follows:

- A statement that the particular treatment or procedure may involve risks to the subject (or the embryo or fetus, if the subject is or may become pregnant) that are currently unforeseeable.
- Any anticipated circumstances under which the subject's participation may be terminated by the investigator without regard to the subject's consent.
- Any additional costs to the subject, or their insurance carrier, that may result from participation in the research.
- The consequences of a subject's decision to withdraw from the research and procedures for orderly termination of participation by the subject.
- A statement that significant new findings developed during the course of the research that may relate to the subject's willingness to continue participation will be provided to the subject.
- The approximate number of subjects involved in the study.