Hong Kong Science and Technology Parks Corporation (HKSTP)
Ethics Guide on Clinical/ Human Research

Short title: HKSTP Ethics Guide for Clinical/ Human Research ("Ethics Guide")

Effective: 2023-10-25

Version: 2

Table of Content

Annexes

Chapter I - Background

1. Innovative technology impacts human and animal healthcare. Companies in this industry often face a range of complex ethical choices during product research and development (R&D) that are part of their business decision-making. Since research ethics governs the standards of conduct for scientific researchers,[1] demonstrating ethical practices in research reflects the **research integrity** of a company and can enhance its **reputation** in the industry.

   Compliance to research ethics can often smooth the path to regulatory approval and marketadoption for a product. Moreover, it can be an enabling factor for the company when considering to working with other (especially larger) corporations and investors in the future.

2. It is **in the best interest of companies** to take proactive measures in all stages of R&D to ensure that high standards of research ethics are maintained. It is the **responsibility of companies** to comply with research ethics standards and guidelines, most notably the Declaration of Helsinki,without limitation the following:

   a) Declaration of Helsinki (World Medical Association, 2013)
   (the statement of ethical principles for medical research involving human subjects, including research on identifiable human material and data)
   https://www.wma.net/what-we-do/medical-ethics/declaration-of-helsinki/

   b) International Ethical Guidelines for Health-related Research Involving Humans(CIOMS/WHO, 2016)
   https://cioms.ch/wp-content/uploads/2017/01/WEB-CIOMS-EthicalGuidelines.pdf

   c) ICH Harmonised Guideline: Guideline for Good Clinical Practice. (ICH Association, 2016)
   https://database.ich.org/sites/default/files/E6_R2_Addendum.pdf

   For reference, please also refer to Annex 1 for common expectations of researchers for clinical research and Annex 2 for other requirements (as applicable) that companies must comply if applicable.

[1] Ensuring ethical standards and procedures for research with human beings. https://www.who.int/ethics/research/en/

Chapter II – Requirements for Conducting Clinical/ Human Research on HKSTP Premises

Part A – Intension to Conduct Clinical/ Human Research Activities

3. A company **must provide the following information and/or documentation** to HKSTP during tenancy/ program application/ prior to its moving into its HKSTP premises and progress update/review.[2]

   a) State whether its tentative, planned or on-going R&D activities during its tenancy/programperiod involve the use of the followings, including those that will take place / have taken place on HKSTP premises and/ or elsewhere in Hong Kong, if related to the company's R&D in HKSTP premises.

      i. recruitment of living individuals for clinical intervention (including, testing of device(s), collection of biospecimen or other procedures involving direct interaction), or
      ii. recruitment of living individuals for behavioral research involving direct interaction, or
      iii. recruitment of living individuals for collection of personal/private data, or
      iv. use of cadavers and/or cadaveric materials

   b) If any part of the clinical/ human research study will be conducted on HKSTP premises, it is **mandatory** to obtain ethics clearance from HKSTP CREC.

   c) If deemed necessary by HKSTP, a company shall provide further proof of ethical appropriateness of its R&D activities.

   *Note: If the tenant/company intends to perform activity related to i, ii, iii entirely or partially on HKSTP premises, ethics approval/ acknowledgment from HKSTP CREC must be obtained before any recruitment/ activity involving human participants/subjects may commence. If the tenant/company intends to perform activity related to iv on HKSTP premises, tenant/company is required to provide proof of ethical acquisition & use of the cadavers to HKSTP CREC and liaise with HKSTP FM and SHE to ensure proper delivery and handling of material.

Part B – Ethics Review and Clearance

4. **<u>All clinical research projects to be entirely or partially conducted on HKSTP premises must obtain research ethics review and clearance from HKSTP Clinical Research Ethics Committee (CREC)</u>**

5. Clinical research projects that meet the following criteria are required to obtain ethics review and clearance before commencement of any related activities including but not limited to subject recruitment, data collection/analysis, etc.

   i. Meet the definition of Clinical Research - *Any medical and health related (incl. psychological) systematic investigation, intended to produce knowledge valuable for understanding, detecting, controlling, preventing and treating health conditions.*

   ii. Project is entirely or partially conducted on HKSTP premises *(partially incl. subject recruitment or intervention or bio-sample manipulation)*

   iii. Project requires obtaining consent from human subjects
      - Any form of direct interaction/ intervention on human subjects
      - Any form of manipulation/ intervention on identifiable[3] bio-samples[4]

[2] Application -- such as that for new tenancy applicants or existing tenants with expansion/reduction request (using the online form, "Business Information & Suitability Assessment" (BISA)).
Progress update/review -- such as that for existing tenants (using the online form, "Annual Business Update" (ABU) which is accessible any time of the year at the "HKSTP Partners Connect" system).

[3] Identifiable: carry a person's name or is linked to a person by a code (Source: CIOMS/WHO 2016 guideline)

[4] Materials: refer to biological materials including but are not limited to tissues, organs, blood, plasma, skin, serum, DNA, RNA, proteins, cells, hair, nail clippings, urine, saliva, or other bodily fluids (Source: CIOMS/WHO 2016 guideline in point 2b)

- Data with any form of personal identifiable information (e.g. collection, processing, manipulation or analysis of personal / health /genomic data)[5]

In general if coded private information, data, or specimens are used, a company's research will be considered to involve human subjects unless it meets both of the following conditions:

i. The project is not collecting samples by interacting or intervening with living people.

ii. None of the research personnel or collaborators can identify or have access to information to identify the subject's identity through identifiers or coded private information or specimens (e.g. an investigator's access to their identities is prohibited by a written agreement).

6. An ethics clearance is normally in the form of **an ethics approval or exemption** that is provided/acknowledged by HKSTP CREC after the relevant committee has carried out **ethics review** of the research study.

   a) About ethics review:

   The peer review process of ethics review is to ensure a proper balance between innovation and ethics. Ethics review will consider, among other aspects --- the study design; provisions for minimizing risk; an appropriate balance of risks in relation to potential individual benefits for participants and the social value of the research; safety of the study site, medical interventions and monitoring safety during the study; and feasibility of the research. Scientifically unsound research involving humans is unethical in that it may expose them to risk or inconvenience for no purpose.[6]

7. How to seek ethics review and clearance from HKSTP CREC:

   Please refer to HKSTP CREC webpage for details. (https://www.hkstp.org/what-we-offer/institute-for-translational-research/hkstp-independent-ethics-committee-iec/hkstp-clinical-research-ethics-committee-crec/)

8. Compliance:

   a) Obtain all necessary ethics clearance.

   b) All procedures performed by the company shall be in accordance with the protocols approved/ acknowledged by the HKSTP CREC.

   c) If any approval/ acknowledgement from HKSTP CREC is suspended or withdrawn, the company must cease all relevant human research activities.

   d) To facilitate a company's ethics and regulatory compliance, the company is required to acknowledge and agree that representatives from HKSTP CREC and/or the external ethics approval body (only applicable for site extension applications) and/or the relevant government department(s) have a right by prior appointment to conduct periodic inspection/monitoring visits at the company's relevant areas and the company shall provide all assistance in relation to such visits, including allowing access of the relevant areas to such representatives and provide relevant information as may be requested.

[5] Including research on identifiable human material and data (Source: Declaration of Helsinki)

[6] IRB or IEC Approval. https://www.niaid.nih.gov/grants-contracts/human-subjects#A9

Chapter III - Dispute Resolution

9. If matters cannot be resolved between the company and HKSTP, HKSTP reserves the rights to seek advice from external experts.

Annex 1: Common expectations of researchers for clinical/ human research

1. Research that involve humans should not be carried out unless the importance of the research objective outweighs the inherent risks & burdens to the human subjects. Every research project involving humans should be preceded by careful assessment of predictable risks in comparison with foreseeable benefits to the human subject or to others. Concern for the interests of the human subject must always prevail over the interest of science & society.

2. Determination of risks in research projects:

   a) Risk may arise from both non-invasive & invasive procedures.

   b) Non-invasive procedures are those which do not interact directly with the body (e.g. asking patients to adopt a particular (normal) posture for measurement purpose).

   c) Invasive procedures are those which interact directly with the body (e.g. asking patients to take a drug or instilling a drug into the eyes).

   d) In the social/psychological sense, invasive procedures are those which impinge on the right to privacy of the individual, in his or her personal life, or his or her medical & social records. In many respects, all social procedures are invasive, since it cannot be known what impact they may have on a particular individual.

   e) Collection of personal data such as opinions, attitudes or beliefs through interviews, questionnaires, participant observation, diaries & letters, may involve psychological risk. Where no record is maintained of the individual's identity in a particular research study, breach of confidentiality is not an issue. However, there may be risks in terms of provoking anxiety or other undesirable states in the interview or questionnaire situation.

   f) Normal routine clinical examination may involve the use of invasive procedures with potential risks, and consent to the clinical examination implies consent to have these procedures performed. However, if such procedures are performed as part of a project, then informed consent to participate in the project will normally be necessary after the potential risks involved in such procedures are clearly explained.

3. The following guidelines should also be observed:

   a) For enrolling human subject(s) to participate in a research project:

      - Voluntary informed consent, in writing, should be obtained from any subject who is able to give such consent.
      - Most procedures of the project should be explained on an informed consent form written in simple language that is easily comprehensible by the potential subject.
      - The informed consent form should set out:
        - the purpose of the investigation or research study;
        - the procedures that the subject will go through;
        - the risks (including psychological distress);
        - the benefits, or absence of them, to the individual or to other or future individuals or to society;
        - procedures for protecting the confidentiality of subjects & their data (see Annex 1 point 4(e) below for details);
        - a statement that the subjects may choose to decline to participate & also that they will be free to withdraw from the study at any time without giving a reason (and without in any way impairing their care); and
        - an invitation to ask questions.
      - Procedures involving no physical & psychological discomfort, such as measurement of height & weight, may be carried out after a simple explanation & a verbal response.

   b) For prospective research projects that involve specimen collection:

- Informed consent should be obtained from the patients/subjects concerned. Quantity of specimens to be collected should not exceed what is required for the research work.

c) For research that involve DNA work:

- The specific nature of the genetic data and the purposes for which they should be collected, treated, used and stored are to be considered on the basis of ethically acceptable procedures, and should be in compliance with the International Declaration on Human Genetic Data (UNSECO, 2003)

4. Guidelines on ensuring confidentiality of research data:

a) Research projects may involve collecting & storing data relating to individuals & groups, and such data, if disclosed to third parties, may cause harm or distress. Consequently, researchers should make arrangements for protecting the confidentiality of such data. Confidentiality is ensured by the researcher's ability to keep data sources protected and subjects involved in the project nameless.

b) The general principle is that at all times, the researchers & other collaborators shall deal with all data obtained through their project in such a manner as not to compromise the personal dignity of the subject and not to infringe upon the subject's right to privacy.

c) Information obtained in the course of a project should be considered privileged information & should under no circumstances be publicly disclosed in a fashion that would identify any specific person or organization (except if subpoenaed by a court).

d) Researchers must outline to prospective subjects the methods that protect the identityof subjects & information obtained in the course of the project.

e) Procedures for protecting the confidentiality of subjects and their data should be outlined in the informed consent form and include:

(i) securing individual confidentiality statements from all researchers;

(ii) coding data with numbers instead of names so as not to reveal to unauthorized persons the identity of the subjects (names and code numbers are kept in different locations);

(iii) maintaining data with any identifying information in a locked file to which only one or two identified investigators have access;[7]

(iv) using pseudonyms for subjects, agencies & geographical settings in the publishing of reports (the keys to the pseudonyms are kept locked & in different locations); and

(v) disposing of information that can reveal the identity of subjects or places carefully(e.g. being burned or shredded rather than thrown into wastebaskets)

f) Under no circumstances shall the identity of the subject, or any information which may identify the subject, be revealed without the subject's adequate prior consent in writing.

g) When personal identifiers are used in a study, researchers should explain to the approving authority why this is necessary & how confidentiality will be protected.

h) In case where confidentiality is threatened, relevant records should be destroyed.

i) It is the researcher's responsibility to ensure that all pledges of confidentiality are strictly honored.

j) The steps to be followed to maintain confidentiality of data and the use to which data will be put, need to be revealed to the approving authority.

[7] The use of computers for processing the data collected for projects poses a special set of risks to anonymity, privacy & confidentiality. The security of the computer-stored data & project reports is of special concern. Security breaches may result in unauthorized access to data, possibly resulting in change to the data or even its loss, and use of data for purposes other than that for which informed consent of subjects allows. Substituting identification numbers for subjects' names on computer files &storing the files under lock & key are possible ways to prevent any accidental breach of confidentiality.

Annex 2: Additional requirements related to clinical/ human research

Besides research ethics compliance, companies and researchers also need to comply with local requirements where the human research takes place and must obtain relevant licenses accordingly.

For reference, companies and their researchers in Hong Kong shall comply with the followingordinances and their regulations as applicable, but are not limited to:

a) Personal Data (Privacy) Ordinance (HKSARG Cap. 486)
https://www.elegislation.gov.hk/hk/cap486https://www.pcpd.org.hk

b) Import and Export Ordinance (HKSARG Cap. 60)
(for research involving the import or export of pharmaceutical products/medicines and dangerous drugs)
https://www.elegislation.gov.hk/hk/cap60
➔ To apply for relevant approval for import/export of pharmaceutical products:
https://www.drugoffice.gov.hk/eps/do/en/pharmaceutical_trade/guidelines_forms/useful_guidelines_forms.html

c) Prevention and Control of Disease Regulation (HKSARG Cap. 599A)*(for research involving the import or transshipment of biological materials)*
https://www.elegislation.gov.hk/hk/cap599A
➔ To apply for relevant permit:
https://www.dh.gov.hk/english/useful/useful_forms/files/dh2465.pdf

d) Pharmacy and Poisons Ordinance (HKSARG Cap.138)
https://www.elegislation.gov.hk/hk/cap138
➔ To apply for relevant certificates & licenses:
https://www.drugoffice.gov.hk/eps/do/en/pharmaceutical_trade/guidelines_forms/useful_guidelines_forms.html

e) Chinese Medicine Ordinance (HKSARG Cap.549)
https://www.elegislation.gov.hk/hk/cap549
➔ To apply for relevant certificate: https://www.cmchk.org.hk/pcm/eng/#main_reg09.htm

*In relation to (d) & (e), **a certificate of clinical trial/medicinal test** for research involving living individuals must be issued by the Pharmacy & Poisons Board (PPB) for pharmaceutical products, and by the Chinese Medicine Council of Hong Kong (CMCHK) for proprietary Chinese medicines, before the clinical trial or medicinal test can be started in Hong Kong. The PPB and CMCHK would not review applications that do not have ethics approval.*

f) Human Organ Transplant Ordinance (HKSARG Cap. 465)
(for research involving the use of human organs, blood & bone marrow)
https://www.elegislation.gov.hk/hk/cap465
➔ To apply for relevant approval: https://www.dh.gov.hk/english/links/links_hot.html

g) Human Reproductive Technology Ordinance (HKSARG Cap. 561)
(for research involving reproductive technology procedures, pre-implantation genetic diagnosis and use of embryos & gametes)
https://www.elegislation.gov.hk/hk/cap561
➔ To apply for relevant license:http://www.chrt.org.hk

and

h) International Declaration on Human Genetic Data (UNSECO, 2003)
(for research involving human genetic data)
http://www.unesco.org/new/en/social-and-human-sciences/themes/bioethics/human-genetic-data/

i) General Data Protection Regulation (EU, 2016)
(for research involving any EU citizen, or for company that is subject to EU regulation)
https://www.pcpd.org.hk/english/data_privacy_law/eu/eu.html

Annex 3: Local organizations which have established CREC/ IRB for clinical/ human research

HKSTP CREC only performs ethics review for clinical research applications submitted by HKSTP partner companies and its ethics approval is only applicable to venues on HKSTP premises.

For clinical research projects that are entirely conducted outside of HKSTP premises. Ethics review and clearance may be obtained through the following channels:

- If a company collaborates with a researcher in an organization that has a CREC/IRB, such as those listed in Annex 3, normally that external researcher will act as the study's Principal Investigator (PI) there and will apply for ethics review for the study. Such ethics review and approval may be extended* to cover the part of the study that is conducted on HKSTP premises. (*Please refer to the requirements for site extension applications)
- If a company works with a clinical research organization (CRO) for the research study, normally the CRO will obtain ethics clearance for it.
- A company may form its own independent CREC/IRB according to established guidelines.[8]
- A company can also refer to other independent CREC/IRBs that would review research studies of external parties.

Local organizations that have established human research REC/IRB to provide ethics oversight for research studies that are carried out by their staff / union members / students (for universities)or at their locations include the following. Companies shall discuss with them directly for any research collaboration opportunities and specifics of your research studies.

Universities:

- Chinese University of Hong Kong
- City University of Hong Kong
- Education University of Hong Kong
- Hong Kong Baptist University
- Hong Kong Shue Yan University
- Hong Kong University of Science and Technology
- Hong Kong Polytechnic University
- The Open University of Hong Kong
- The University of Hong Kong

Public hospitals and clinics:

- those managed by the Hospital Authority

  --- There are 6 clinical research ethics committees overseeing clinical studies in 7 public hospital clusters. Two of them, the HKU/HA HKW IRB and the Joint CUHK-NTEC CREC, are being jointly operated with HKU and CUHK respectively.

Private hospitals and their clinics:

- Canossa Hospital
- CUHK Medical Center
- Evangel Hospital
- Gleneagles Hong Kong Hospital
- Hong Kong Adventist Hospital – Stubbs Road
- Hong Kong Adventist Hospital – Tsuen Wan
- Hong Kong Baptist Hospital
- Hon Kong Sanatorium & Hospital
- Matilda International Hospital
- Precious Blood Hospital
- St Paul's Hospital
- St Teresa's Hospital
- Union Hospital

[8] See Guideline 23 "Requirements for establishing research ethics committees and for their review of protocols". (CIOMS/WHO 2016 guideline