NTU Cryo-EM Lab Sample Declaration Form

- For health, safety and environmental reasons, please fill in the Sample Declaration Form and submit it for review.
- If you have more than one sample, please use a separate form for each sample. Please attach additional information on your sample if available.
- If the Safety Data Sheet for your sample is available, please attach it to this declaration form.
- Do not leave blanks in any of the following sections.
- The Cryo-EM Lab at SBS and AToM@FACTS reserves the right to deny you access to our equipment if there are health and safety concerns.
- NTU reserves the right to take legal action against the requester if the sample poses and cause any safety/health concern to NTU and when a false declaration is made on the sample.

Sample Description

Sample Name:_____

Type *(protein, cells, bacteria, virus…):* _____

Function: _____

Source origin:_____

Risk Group (see attached WHO Risk Class) : 1 ☐, 2 ☐, 3 ☐, 4 ☐
Please use scientific names (*Escherichia coli, Homo sapiens, and strain* …)

Expression host:_____

Risk Group (see attached WHO Risk Class) : 1 ☐, 2 ☐, 3 ☐, 4 ☐
Please use scientific names (*Escherichia coli, Spodoptera frugiperda*….)

The sample a virus ☐, a toxin ☐, a prion protein ☐, a virulence factor ☐, other (please specify) ☐

Is the sample an infectious research material? Yes □, No □

Does the sample contain any pathogenic agents? Yes □, No □

Is the sample contaminated with any infectious material? Yes □, No □

Is NTU Institutional Biosafety Committee (IBC) Review required for this sample? Yes □, No □
(Please refer to the BPN Application Requirements attached to the Sample Declaration Form to determine if IBC review is required, and highlight the reason(s) for review.)

What class of biological laboratory facilities is required to handle your sample? Please refer to the BSL definition attached to the Sample Declaration Form. Also note that the Cryo-EM labs in NTU are BSL2 labs.

BSL1 ☐ BSL2 ☐ BSL3☐ BSL4 ☐

Does the sample contain any hazardous substances (heavy metals, inhibitors, toxic drugs…)?
Yes ☐ No ☐

If yes please specify: _____

User has submitted a valid risk assessment form for work that will be conducted at the NTU Cryo-EM Lab.

Yes ☐ No ☐ Any remarks: _____

I, _____ (user's name), declare that the above information is correct, to the best of my knowledge. I will take all steps to ensure safe and proper transport and storage of material when using the equipment in the NTU Cryo-EM Lab (at SBS and AToM@FACTS). I also acknowledge that I could be held liable for any false, incorrect, and misleading information made on this form.

User's signature:_____

Email:_____

Contact number (Office):_____

User's Institution/Department/School:_____

Name of PI: _____

Date:_____

WHO Risk Group Classification

WHO recommends that each country classifies the agents in that country by risk group based on pathogenicity, modes of transmission and host range of the organism. These may be influenced by existing levels of immunity, density and movement of host population, presence of appropriate vectors and standards of environmental hygiene.

Risk Group 1

(no or low individual and community risk).
A microorganism that is unlikely to cause human disease or animal disease

Risk Group 2

(moderate individual risk, low community risk).
A pathogen that can cause human or animal disease but is unlikely to be a serious hazard to laboratory workers, the community, livestock or the environment. Laboratory exposures may cause serious infection, but effective treatment and preventative measures are available and the risk of spread of infection is limited.

Risk Group 3

(high individual risk, low community risk).
A pathogen that usually causes serious human or animal disease but does not ordinarily spread from one infected individual to another. Effective treatment and preventive measures are available.

Risk Group 4

(high individual and community risk).
A pathogen that usually causes serious human or animal disease and that can be readily transmitted from one individual to another, directly or indirectly. Effective treatment and preventive measures are not usually available.
The risk group classification of infectious agents varies from country to country. An agent classified into Risk Group 2 in one country may be classified as Risk Group 3 in another.
The American Biological Safety Association (ABSA) has a useful online risk group database search function that returns information of the risk grouping of a hazardous agent in various countries: http://www.absa.org/XriskgroupsX/index.html

BPN Application Requirements*

S/No.	Research works	To Apply (Y/N)
1	To handle microorganism (bacteria, virus, fungi, parasite, etc.) listed in schedules of BATA	Y
2	To handle any microorganism (bacteria, virus, fungi, parasite, etc.) not listed in Schedule 4 of BATA, but may be listed in unpublished addendum to Schedule 4[6]	Y
3	To manipulate any GMO or genetic material (GMAC category A, B & C)	Y
4	To handle microbial toxin listed in BATA schedules	Y
5	To handle microbial toxin not listed in BATA schedules	Y
6	To use test kit (inactivated), vaccine, protein, antibiotics, antibody, culture medium, etc. but no culture or isolation of any microorganism is involved	N
7	To do experiment with human object, diagnostic sample, autopsy sample but no culture or isolation of any microorganism is involved	N
8	To grow or isolate microorganism from natural, food or environmental sample such as waste water, sludge, etc.	Y
9	To test natural, food or environmental sample which may contain microorganisms, by mechanical, chemical or physical method, but no culture or isolation involved	N
10	To use tissue or cell culture for growing, replication or maintenance of virus or microorganism	Y
11	To handle tissue culture or cell for study of behaviour, histological staining and morphology, but no microorganism is involved in experiment	N
12	To use tissue or cell culture for transfection with plasmid or genetic material to produce infectious particle or pseudo-virus	Y
13	To use tissue or cell culture for testing with protein, antibody, etc. and chemical, physical, mechanical method	N

* **taken from the NTU Safety Manual for Biological Work**

[6] The list of Schedule 4 is not exhaustive but may contain strains or variations of species specific that need impact license or control.

Approval/Permit Required from Authorized Agencies*

S/No.	Research works	Agency/Committee
1	To import any biological agents (microorganisms) and toxins - BATA schedule 1, 2, 3, 4 & 5	MOH & Customs
2	To possess biological agents and toxins - BATA schedule 1, 2 & 5	MOH
3	To transfer BATA schedule 1, 2 & 5	MOH
3	To possess/use zoonotic microorganism	AVA & MOH
4	To import animal and animal product - serum, blood, organ etc.	AVA & Customs
5	To use animal and insect in experiment	IACUC & AVA
6	To use human object and human sample	IRB & MOH

***taken from the NTU Safety Manual for Biological Work**

Biological laboratory facilities in NTU follow guidelines stated in WHO Laboratory Biosafety Manual*. These are:

Biosafety Level 1 (BSL1)	Biosafety Level 2 (BSL2)	Biosafety Level 3 (BSL3)	Biosafety Level 4 (BSL4)
Basic	Basic	Containment	Maximum Containment
Basic teaching and research laboratories where basic biosafety rules stated in section 6 are in place.	Research laboratories with biosafety practices plus protective equipment, biohazard sign, controlled laboratory access and biological safety cabinet. (sections 6 & 7). Most of the research laboratories in NTU are classified as BSL-2.	Not available in NTU. - special clothing - strict controlled access - directional air flow - biological safety cabinets - other primary devices for all activities This special facility is set up as a core facility for research work involving biological materials of potential biohazard.	Not available in NTU.

N.B: Bio-safety level designations are based on a composite of the design features, construction, containment facilities, equipment, practices and operational procedures for working with agents from the various risk groups.

*** taken from the NTU Safety Manual for Biological Work**