APPENDIX A

Draft Minutes of the 9th meeting of the Biosafety Committee held on Thursday, 11th October 2012

The following members were present:-

	Affiliation	**Function/Role**
Professor K.S-L.Lam	Medicine	Chairman
Dr E.K.M. Hau	Safety Office	Safety Office Rep
Dr. K.S. Lo	LAU	CULATR liaison etc.
Professor G.S.W. Tsao	Anatomy	Medical Faculty Rep
Dr VCH Lui	Surgery	Medical Faculty Rep
Dr. Mike Mackett	Safety Office	Secretary (BSO)

Apologies were received from Dr Hani El-Nezami, Ms Cindy Lee, Dr C.F. Zhang, and Professor F. K.S. Leung all of whom were on trips overseas for various reasons.

1. Minutes of the 8th meeting of the Biosafety Committee (9th February 2012)
The draft minutes of the 8th meeting of the Biosafety Committee were confirmed as an accurate record of the meeting.

Action point: Secretary to arrange for the final version of the minutes to be posted on the Safety Office website.

2. Matters arising from the minutes of the 8th meeting.
Actions taken following the 8th meeting in the areas indicated are detailed below.

(A). Administration
i) The secretary arranged for the final version of the minutes of the May 2011 meeting to be posted on the Safety Office website. See:- http://www.safety.hku.hk/homepage/BCom.html. The Biosafety Committee information page contains links to previous agenda's and meeting minutes.

(B). Monitoring biosafety
Discussions on monitoring biosafety revolved around the feasibility of scanning CD's of grant proposals and the tick-box approval forms that accompany RGC grant applications. As approval involves the consideration of a number of types of risks in addition to biological safety such as chemical and radiation hazards it was concluded that the Safety Office should review the approval process, forms and potential scanning of grant applications for safety concerns

(C). Risk assessment
Dr Hau, Dr Mackett, Dr El-Nezami and Professor Tsao met on 25th April 2012 to discuss risk assessment. It was agreed that a document on risk assessment with examples should be produced to assist those needing to produce a risk assessment. The first iteration of this document was tabled for discussion.

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(D). Biosafety training induction course
i) The chairman wrote a letter to the Deans of Faculties and Heads of Departments (sent in April) informing them that a half day Biosafety training course will be available twice a year starting in September 2012. The letter also explained that the committee believes all those exposed to hazardous biological materials should attend (including RA's and technical staff).
ii) The secretary developed the course and as the committee felt that it would be most effective if done in person rather than as an online course, has run two sessions thus far. The first course on September 7th 2012 had 55 attendees and the slides used have been uploaded to the Safety Office Biosafety webpages under the tag "Introductory Biosafety Course" at:- http://www.safety.hku.hk/homepage/bio.html. The second course, for the department of Biochemistry, was run on the 10th October 2012 with just under 60 participants.

(E). Review and update of Biosafety policy
i) The secretary informed the meeting that he had updated the sections of the policy that required factual additions e.g. section 2 where new laws have been enacted since the policy was developed and has streamlined other sections. The updated policy document was tabled for discussion.
ii) The secretary also generated a frequently asked questions section to go with the policy partly with the aim of making the information more accessible.
iii) The chairman wrote a letter to the heads of Department highlighting the need to keep an inventory of biological agents at a departmental level. (The letter written to introduce the new biosafety course also referred to keeping an inventory).

3. Risk assessment.
The secretary reminded the meeting that we had carried out a review of Biosafety and one conclusion we came to was that risk assessment in the university was "at best inconsistent". We agreed to set up a small group to discuss risk assessment and recommend to the committee how this inconsistency might be remedied. The secretary met with Dr Hau, Dr El-Nezami, and Professor Tsao on 25th April 2012. We agreed that a pamphlet describing risk assessment with worked examples would provide a resource that might be used as a standard. The first draft of the document was presented at the meeting. It was felt the document was still a work in progress and the authors felt it was rather long. However it was also believed that as the nature of some assessments require detail and it would be difficult to shorten and still be thorough.

The committee was not too concerned over the documents length as it was felt that those using it would find the sections relevant to their work. This highlighted the need for a clear index and efficient design. The secretary explained that in order to make the document more accessible a one page index and many highlighted boxes have been used to emphasize the important points. One particular example (adenovirus vectors) is presented in two different formats to illustrate that assessments can be flexible in their approach and underline the fact that no one way has been adopted internationally as a standard risk assessment.

Inclusion of further information on task analysis was discussed and it was felt that this use of further technical terms might not be too helpful.

The committee agreed that the document was a useful contribution in clarifying risk assessment for biological agents and encouraged the completion of the document which would be circulated to committee members for comment and approval at the next meeting.

Action point: Secretary to table the final version of the document at the next committee meeting or circulate before if completed.

4. A review of the Universities Biosafety Policy

An updated Biosafety Policy document was included in the meeting papers. The secretary explained that it includes a redraft of some sections such as the one on Hong Kong legislation and attempts at various points to streamline the document by moving information to other sources - hopefully making the policy document less cluttered and more accessible. This was also the function of the section called "frequently asked questions" although only the questions were presented without responses.

There was some limited discussion on several minor details. The committee agreed that these details should be modified, the frequently asked question section completed and the document circulated among committee members for approval at the next meeting.

Action point: Secretary to table the final version of the document at the next committee meeting or circulate before if completed.

5. Guidance on the use of cell lines in research

A brief document entitled "Guidance on the use of cell lines in research" was discussed. The document included an example of the bulk culture of EBV positive cell lines using the 5 steps to risk assessment explained in the risk assessment document. While generally agreeing with the document the committee felt it might be helpful to have a few extra paragraphs outlining issues with work on xenotransplantation experiments, stem cells, iPSC's and cells modified by lentiviruses. It was agreed that the modified document, once complete, would be circulated for committee approval possibly at the next meeting.

Action point: Secretary to table the final version of the document at the next committee meeting or circulate before if completed.

6. Updated Guidance on Clinical Waste.

The committee reviewed the updated guidance on Clinical Waste and the few comments made felt the guidance was a detailed, thorough and useful guide, particularly the section on common examples of poor practice. The committee approved the document although it was noted that several new sites within the University will be registered with EPD as producing waste including the Human Research Institute on Sassoon Road and consequently there will be more producer codes to add to the document. It was suggested

this could be done once the codes were received and need not delay the document being submitted to SHEC for formal approval.

Action point: Secretary to arrange for the final version of the document to be posted on the Safety Office website.

7. Dual Use Research – follow up from previous meeting - for information.
The following paragraphs were included in the meeting agenda minutes for information:-

Part of the remit of the Biosafety committee is to "promote, collect and disseminate information and guidance" on Biosecurity issues and this includes "dual use" biological experiments. As explained then the US based National Science Advisory Board for Biosecurity (NSABB) defines dual use research of concern as "research that, based on current understanding, can be reasonably anticipated to provide knowledge, products, or technologies that could be directly misapplied by others to pose a threat to public health and safety, agricultural crops and other plants, animals, the environment or material."

Of particular relevance to HKU, considering the widespread influenza work carried out, was two papers which were reported to describe the creation of a highly pathogenic H5N1 influenza virus that is capable of airborne transmission in ferrets. The NSABB was asked to review the papers and, in a highly unusual move, recommended that the 'experimental details and mutation data that would enable replication of the experiments' be removed, although they said the general conclusions of the manuscripts could be published. Subsequently following further discussion they reversed this decision and both of the controversial papers have been published. See Herfst *et al* Airborne Transmission of Influenza A/H5N1 Virus Between Ferrets, Science 22 June 2012: Vol. 336 no. 6088 pp. 1534-1541; Imai *et al* Experimental adaptation of an influenza H5 HA confers respiratory droplet transmission to a reassortant H5 HA/H1N1 virus in ferrets Nature 486,420–428 (21 June 2012).

8. Dates of next meetings.
The secretary noted that the next Biosafety Committee meeting was set for 7th February 2013 and suggested that in order to spread out the meetings more evenly it would be appropriate to meet in March rather than early February. This would still allow a report to go to the spring meeting of SHEC. Subsequently March 14th 2013 was agreed as the date for the next meeting and committee members have been circulated with this revised date.