Birkbeck UNIVERSITY OF LONDON **Health and Safety Services**

COSHH/Lab-work Risk Assessment Form

N.B. All risk assessments - including GM forms - must be reviewed at least once per year to ensure they are up-to-date. For example - check for changes in personnel, method, materials, lab and risk levels.

I, the UNDERSIGNED, have identified the health and safety hazards and have assessed the levels of risk to persons and property which might arise from the (tick relevant box/es) :

Research Project | X	P.G. Student Project |	Taught Practical Course |	Work Assignment |

entitled (block capitals)...DNA purification with solid silica matrices (plasmid mini-preps, PCR purification and agarose gel purification) .....

The work involves : (in bold)

A. Laboratory hazards not in categories B-E below and not requiring controls or precautions beyond the requirements of the general departmental/school safety codes of practice that will be issued to relevant workers/students and adhered to.

B. Biological substances hazardous to health - i.e. viruses, micro-organisms, GM material etc above bio-hazard group 1.

C. Chemical substances hazardous to health - i.e. known or suspected irritants, toxins, carcinogens plus highly flammables and explosives.

D. Physical hazards to health - i.e. ionizing radiation, high voltage equipment, noise >80dB(A), ultrasonics, lasers and other non-ionising radiations.

E. Environmental or other hazard stated here:
.....

If the work is in **category A.** above - state **OVERLEAF** the titles of the school/dept. safety code that covers the work involved and that will be issued to relevant workers/students.

If the work is in **categories B-E** above - state **OVERLEAF** your full assessment of the risks involved and the particular codes of practice and/or control measures that will be taken to protect persons and property beyond those specified in a general departmental/school safety code of practice.

Note: If **HEALTH SURVEILLANCE** is required e.g. work with allergens, certain chemicals or involving expectant or breastfeeding mothers, the names of the relevant workers must be notified to the College Health and Safety Officer who will initiate the procedure for pre-employment, commencement of project and annual follow up questionnaires.

DECLARATION: I (member of staff overseeing the work) ……Dr. Vitor B. Pinheiro…… confirm that all who will be involved in the work are listed overleaf and have read and understood this assessment.

SIGNATURE: ..... **DATE**: .....

HAZARD CATEGORY A:

All work must be carried out according the Code of Practice for Safe Working in the Malet Street Main Building (http://www.bbk.ac.uk/biology/our-research/safety/BIOL_Safety.doc)

Excision of the DNA fragment from an agarose gel should be done using plastic spatulas to minimize physical hazard from sharp objects. Similarly, extraction of DNA from an agarose gel can be done at higher temperatures in which case care must be taken with hot (< 65°C) surfaces and equipments.

HAZARD CATEGORIES B-E

IDENTIFY

Buffers used in DNA purification (commercial kits) contain hazardous substances, including chaotropic salts (binding buffers), acid (neutralizing buffer in mini-prep), alkali and detergents (cell lysis buffer in mini-preps) – all known irritants.

CONTROL

- Standard personal protection equipment (lab coats and gloves) is required at all times when carrying out lab work
- Irritants are a component of the commercial buffers and reactions carried out will be generally small (< 1000 µL per reaction)
- Work areas should be cleaned before and after any reactions are carried out
- Safe disposal of any plasticware that have come in contact with any solution used in the purification of DNA
- Excision of the DNA fragment from an agarose gel should be done using plastic spatulas to minimize physical hazard from sharp objects

INFORM

- All people associated with this project will read the Safety code of practice
- All people will be inducted in local safety arrangements by the local lab manager
- Senior members of the project (with more than 2 years lab experience) will train and supervise junior members to ensure project is being carried out safely
- All members of the project will adhere to standard operating procedures

MONITOR
No health surveillance is required.
Safe working practices will be monitored by Dr. Vitor Pinheiro, through regular spot checks.

REVIEW
Remember to review this assessment at least annually and more often if there is a material change to the work which may affect this risk assessment. See top of front page.

Employees/P.G. students/workers/others involved with the work

Name	Status	Initialled as seen & understood	Date
Ms. Luba Prout			
Ms. Barbara Steijl			
Mr. Pedro Tizei			
Ms. Yan Kay Ho			
Mr. Wayne Pires			
Mr. Tim Walker			
Mr. Sean Craig			
Ms. Ariana Mirzarafie-Ahi			
Ms. Rachel Wellman			
Mr. Shapoor Mohamadi			
Mr. Mervyn Richardson			
Mr. Elliot Parris			
Dr. Vitor B. Pinheiro			

Keep this form where it can be conveniently referred to by workers/students or inspectors. A copy also requires to be retained centrally for 40 YEARS!