

Short Contract

A contract between **The Secretary of State for Health and Social Care, as part of the Crown, acting through the Medicines and Healthcare products Regulatory Agency**

and 

For **Bulk Cell Culture Facility**

C106354

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Notes about this contract are printed in boxes like this one. They are not part of the contract.

Contract Data

The *Employer* is

Name **Medicines and Healthcare products Regulatory Agency**
Address **Blanche Lane, South Mimms, Potters Bar, Hertfordshire, EN6 3QG.**
Telephone **01707 641 000**
E-mail address **purchasing@mhra.gov.uk**

The *service* is **Bulk Cell Culture Facility**

The *starting date* is [REDACTED]

The *service period* is [REDACTED]

The *period for reply* is **2** weeks.
The *assessment day* is the **1st** of each month.

Does the United Kingdom Housing Grants, Construction and
Regeneration Act (1996) apply? **No**

Contract Data

The *Adjudicator* is

Name

Address

Telephone

E-mail address

The interest rate on late payment is % per complete week of delay.

Insert a rate only if a rate less than 0.5% per week of delay has been agreed.

The *Contractor* is not liable to the *Employer* for loss of or damage to the *Employer's*

property in excess of **£1,000,000.00** for any one event.
.....

The *Employer* provides this
insurance

Only enter details here if the *Employer* is to provide insurance.

.....
.....

The minimum amount of cover for the first insurance stated in the

Insurance Table is **£1,000,000**

The minimum amount of cover for the third insurance stated in the

Insurance Table is **£1,000,000**

The minimum amount of cover for the fourth insurance stated in the

Insurance Table is **£1,000,000**

The *Adjudicator nominating*
body is

The *tribunal* is

If the *tribunal* is arbitration,
the arbitration procedure is

The terms and *conditions of contract* will be NEC3 Term Service Short Contract April 2013

Only enter details here if additional conditions are required.

Z1 Official Secrets and confidentiality

Z1.1 The Official Secrets Act 1989 and, where appropriate, the provisions of section 11 of the Atomic Energy Act 1946 apply to this contract from the starting date until the Defects Certificate or a termination certificate has been issued.

Z1.2 The Contractor notifies his employees and his Subcontractors of their duties under these Acts.

Contract Data

Z1.3 The Contractor does not use or disclose information concerning the contract obtained either by the Contractor or by any person employed by him except for the purposes of the contract.

Z2 Security

Z2.1 The Contractor submits to the Project Manager details of people who are to be employed by him and his Subcontractors in connection with the works. The details include a list of names and addresses, the capacities in which they are employed, and other information required by the Project Manager.

Z2.3 Employees of the Contractor and his Subcontractors are to carry an Employer's pass whilst they are on the parts of the Site stated in the Contract Data.

Z2.4 The Contractor submits to the Project Manager for acceptance a list of the names of the people for whom passes are required. The Project Manager issues the passes to the Contractor. Each pass is returned to the Project Manager when the employee no longer requires access to that part of the Site or after the Project Manager has given notice that the employee is not to be admitted to the Site.

Z2.5 The Contractor does not take photographs of the Site or the works or any part of them unless he has obtained the acceptance of the Employer.

Z2.6 The Contractor takes the measures needed to prevent his and his Subcontractors' people taking, publishing or otherwise circulating such photographs.

Z3 Payment of undisputed invoices within 30 days by contracting authorities [Employers], contractors and subcontractors – Public Contracts Regulations 2015, Regulation 113

Z3.1 That any payment due from the Employer to the Contractor under the contract is to be made no later than the end of a period of 30 days from the date on which the relevant invoice is regarded as valid and undisputed.

Z3.2 Any invoices for payment submitted by the contractor are considered and verified by the Employer in a timely fashion and that undue delay in doing so is not to be sufficient justification for failing to regard an invoice as valid and undisputed.

Z3.3 That any subcontract awarded by the contractor contains suitable provisions to impose, as between the parties to the subcontract—
 (i) requirements to the same effect as those which sub-paragraphs Z5.1 and Z5.2 require to be imposed as between the parties to the public contract; and
 (ii) a requirement for the subcontractor to include in any subcontract which it in turn awards suitable provisions to impose, as between the parties to that subcontract, requirements to the same effect as those required by this sub-paragraph Z5.3.

Z4 Orders and Invoicing

Z4.1 All orders for goods, requests for planned preventative maintenance, reactive maintenance and replacement parts must be subject to a purchase order from the Employer.

Z4.2 All invoices must state the Employers purchase order number, otherwise the invoice will be returned to the supplier.

Z4.3 A single invoice must only relate to a single purchase order (PO). The employer cannot process invoices against multiple POs.

Z5 General Data Protection Regulation (Regulation (EU) 2016/679) – “GDPR”

Z5.1 GDPR CLAUSE DEFINITIONS:

Data Protection Legislation: (i) the GDPR, the LED and any applicable national implementing Laws as amended from time to time (ii) the DPA 2018 [subject to Royal Assent] to the extent that it relates to processing of personal data and privacy; (iii) all applicable Law about the processing of personal data and privacy;

Data Protection Impact Assessment: An assessment by the Controller of the impact of the envisaged processing on the protection of Personal Data.

Controller, Processor, Data Subject, Personal Data, Personal Data Breach, Data Protection Officer: take the meaning given in the GDPR.

Contract Data

Data Loss Event: Any event that results, or may result, in unauthorised access to Personal Data held by the Processor under this Agreement, and/or actual or potential loss and/or destruction of Personal Data in breach of this Agreement, including any Personal Data Breach.

Data Subject Request: A request made by, or on behalf of, a Data Subject in accordance with rights granted pursuant to the Data Protection Legislation to access their Personal Data.

DPA 2018: Data Protection Act 2018

GDPR: the General Data Protection Regulation (Regulation (EU) 2016/679)

Joint Controllers: Where two or more Controllers jointly determine the purposes and means of processing

LED: Law Enforcement Directive (Directive (EU) 2016/680)

Protective Measures: Appropriate technical and organisational measures which may include: pseudonymising and encrypting Personal Data, ensuring confidentiality, integrity, availability and resilience of systems and services, ensuring that availability of and access to Personal Data can be restored in a timely manner after an incident, and regularly assessing and evaluating the Effectiveness of the such measures adopted by it including those outlined in Annex 2 (Security).

Sub-processor: Any third Party appointed to process Personal Data on behalf of that Processor related to this Agreement

- Z5.2 The Parties acknowledge that for the purposes of the Data Protection Legislation, the Customer is the Controller and the Contractor is the Processor unless otherwise specified in Annex 1. The only processing that the Processor is authorised to do is listed in Annex 1 by the Controller and may not be determined by the Processor.
- Z5.3 The Processor shall notify the Controller immediately if it considers that any of the Controller's instructions infringe the Data Protection Legislation.
- Z5.4 The Processor shall provide all reasonable assistance to the Controller in the preparation of any Data Protection Impact Assessment prior to commencing any processing. Such assistance may, at the discretion of the Controller, include:
- Z5.4.1 a systematic description of the envisaged processing operations and the purpose of the processing;
 - Z5.4.2 an assessment of the necessity and proportionality of the processing operations in relation to the Services;
 - Z5.4.3 an assessment of the risks to the rights and freedoms of Data Subjects; and
 - Z5.4.4 the measures envisaged to address the risks, including safeguards, security measures and mechanisms to ensure the protection of Personal Data.
- Z5.5 The Processor shall, in relation to any Personal Data processed in connection with its obligations under this Agreement:
- Z5.5.1 process that Personal Data only in accordance with Annex 1, unless the Processor is required to do otherwise by Law. If it is so required, the Processor shall promptly notify the Controller before processing the Personal Data unless prohibited by Law;
 - Z5.5.2 ensure that it has in place Protective Measures, which are appropriate to protect against a Data Loss Event, which the Controller may reasonably reject (but failure to reject shall not amount to approval by the Controller of the adequacy of the Protective Measures), having taken account of the:
 - Z5.5.2.1 nature of the data to be protected;
 - Z5.5.2.2 harm that might result from a Data Loss Event;
 - Z5.5.2.3 state of technological development; and
 - Z5.5.2.4 cost of implementing any measures;

Contract Data

Z5.5.3 ensure that:

- Z5.5.3.1 the Processor Personnel do not process Personal Data except in accordance with this Agreement (and in particular Annex 1);
- Z5.5.3.2 it takes all reasonable steps to ensure the reliability and integrity of any Processor Personnel who have access to the Personal Data and ensure that they:
 - (a) are aware of and comply with the Processor's duties under this clause;
 - (b) are subject to appropriate confidentiality undertakings with the Processor or any Sub-processor;
 - (c) are informed of the confidential nature of the Personal Data and do not publish, disclose or divulge any of the Personal Data to any third Party unless directed in writing to do so by the Controller or as otherwise permitted by this Agreement; and
 - (d) have undergone adequate training in the use, care, protection and handling of Personal Data; and
- Z5.5.3.3 not transfer Personal Data outside of the EU unless the prior written consent of the Controller has been obtained and the following conditions are fulfilled:
 - (a) the Controller or the Processor has provided appropriate safeguards in relation to the transfer (whether in accordance with GDPR Article 46 or LED Article 37) as determined by the Controller;
 - (b) the Data Subject has enforceable rights and effective legal remedies;
 - (c) the Processor complies with its obligations under the Data Protection Legislation by providing an adequate level of protection to any Personal Data that is transferred (or, if it is not so bound, uses its best endeavors to assist the Controller in meeting its obligations); and
 - (d) the Processor complies with any reasonable instructions notified to it in advance by the Controller with respect to the processing of the Personal Data;
- Z5.5.3.4 at the written direction of the Controller, delete or return Personal Data (and any copies of it) to the Controller on termination of the Agreement unless the Processor is required by Law to retain the Personal Data.

Z5.6 Subject to clause 14.6, the Processor shall notify the Controller immediately if it:

- Z5.6.1 receives a Data Subject Request (or purported Data Subject Request);
- Z5.6.2 receives a request to rectify, block or erase any Personal Data;
- Z5.6.3 receives any other request, complaint or communication relating to either Party's obligations under the Data Protection Legislation
- Z5.6.4 receives any communication from the Information Commissioner or any other regulatory authority in connection with Personal Data processed under this Agreement;
- Z5.6.5 receives a request from any third Party for disclosure of Personal Data where compliance with such request is required or purported to be required by Law; or
- Z5.6.6 becomes aware of a Data Loss Event.

Z5.7 The Processor's obligation to notify under clause Z5.6 shall include the provision of further information to the Controller in phases, as details become available.

Z5.8 Taking into account the nature of the processing, the Processor shall provide the Controller with full assistance in relation to either Party's obligations under Data Protection Legislation and any complaint, communication or request made under clause Z5.6 (and insofar as possible within the timescales reasonably required by the Controller) including by promptly providing:

- Z5.8.1 the Controller with full details and copies of the complaint, communication or request;
- Z5.8.2 such assistance as is reasonably requested by the Controller to enable the Controller to comply with a Data Subject Request within the relevant timescales set out in the Data Protection Legislation;
- Z5.8.3 the Controller, at its request, with any Personal Data it holds in relation to a Data Subject;
- Z5.8.4 assistance as requested by the Controller following any Data Loss Event;
- Z5.8.5 assistance as requested by the Controller with respect to any request from the Information Commissioner's Office, or any consultation by the Controller with the Information Commissioner's Office.

Z5.9 The Processor shall maintain complete and accurate records and information to demonstrate its compliance with this clause. This requirement does not apply where the Processor employs fewer than 250 staff, unless:

Contract Data

- Z5.9.1 the Controller determines that the processing is not occasional;
- Z5.9.2 the Controller determines the processing includes special categories of data as referred to in Article 9(1) of the GDPR or Personal Data relating to criminal convictions and offences referred to in Article 10 of the GDPR; or
- Z5.9.3 the Controller determines that the processing is likely to result in a risk to the rights and freedoms of Data Subjects.
- Z5.10 The Processor shall allow for audits of its Data Processing activity by the Controller or the Controller's designated auditor.
- Z5.11 Each Party shall designate its own data protection officer if required by the Data Protection Legislation.
- Z5.12 Before allowing any Sub-processor to process any Personal Data related to this Agreement, the Processor must:
 - Z5.12.1 notify the Controller in writing of the intended Sub-processor and processing;
 - Z5.12.2 obtain the written consent of the Controller;
 - Z5.12.3 enter into a written agreement with the Sub-processor which give effect to the terms set out in this clause
- Z5.13 such that they apply to the Sub-processor; and
- Z5.14 provide the Controller with such information regarding the Sub-processor as the Controller may reasonably require.
- Z5.15 The Processor shall remain fully liable for all acts or omissions of any of its Sub-processors.
- Z5.16 The Controller may, at any time on not less than 30 Working Days' notice, revise this clause by replacing it with any applicable controller to processor standard clauses or similar terms forming part of an applicable certification scheme (which shall apply when incorporated by attachment to this Agreement).
- Z5.17 The Parties agree to take account of any guidance issued by the Information Commissioner's Office. The Controller may on not less than 30 Working Days' notice to the Processor amend this agreement to ensure that it complies with any guidance issued by the Information Commissioner's Office.
- Z5.18 Where the Parties include two or more Joint Controllers as identified in Annex 1 in accordance with GDPR Article 26, those Parties shall enter into a Joint Controller Agreement based on the terms outlined in Annex 1 in replacement of Clauses Z5 for the Personal Data under Joint Control.
- Z6 Crown Commercial Service**
 - Z6.1 The Crown Commercial Service (CCS) will be entitled to request management information from the successful supplier. This will facilitate the collection and analysis of supplier management information relating to Government contracts. This policy contributes to the Government's aim to achieve greater efficiencies in Public Sector procurement. This is a mandatory requirement that has been placed upon the Employer.

Contract Data

Annex 1 Schedule of Processing, Personal Data and Data Subjects

Description	Details
Identity of the Controller and Processor	The Parties acknowledge that for the purposes of the Data Protection Legislation, the Employer is the Controller and the Contractor is the Processor in accordance with Clause Z5.
Subject matter of the processing	The processing is needed to ensure that the Processor can effectively deliver the contract to provide a service to the agency.
Duration of the processing	The duration is for the life of the contract
Nature and purposes of the processing	Recording and storage of work contact details.
Type of Personal Data being Processed	Staff name and department, address of Agency, work telephone numbers and emails.
Categories of Data Subject	Staff
Plan for return and destruction of the data once the processing is complete UNLESS requirement under union or member state law to preserve that type of data	Data does not need to be returned. Staff lists need to be deleted from Processor database at end of contract.

The Contractor's Offer

The Contractor is

Name

Address

Telephone

E-mail address

The percentage for overheads and profit added to the Defined Cost for people is [enter %] %.

The percentage for overheads and profit added to other Defined Cost is [enter %] %.

The Contractor offers to Provide the Service in accordance with the *conditions of contract* for an amount to be determined in accordance with the *conditions of contract*.

The offered total of the Prices for part of the
service in Part 1 of the Price List is

The offered total of the Prices for part of the
service in Part 2 of the Price List is

Enter the total of the Prices from the Price List. £

Signed on behalf of the Contractor
(Commercial Services UK Ltd)

Name

Position

Signature

Date

The Employer's Acceptance

The Employer accepts the Contractor's Offer to Provide the Service

Signed on behalf of the Employer
(MHRA)

Name

Position

Signature

Date

Price List

The Price List is in two parts. Part 1 is for work described in the Service Information not requiring the *Employer* to issue a Task Order. Part 2 is for work to be carried out within a stated period of time on a Task by Task basis and instructed by Task Order. The service may comprise work under Part 1 only or Part 2 only or a mix of both.

Entries in the first four columns of Part 1 of the Price List are made either by the *Employer* or the tenderer. Entries in the first four columns of Part 2 of the Price List would normally be made by the *Employer* as the Party most likely to know the kind of work which will be instructed by the issue of Task Orders. The tenderer then enters a rate for each item and multiplies it by the Expected quantity to produce the Price to be entered in the final column.

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tenderer enters the amount in the Price column only, the Unit, Expected quantity and Rate columns being left blank.

If the *Contractor* is to be paid an amount for the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters a rate for each item and multiplies it by the Expected quantity to produce the Price, to be entered in the final column.

If the *Contractor* is to be paid a Price for an item proportional to the length of time for which a service is provided, a unit of time is stated in the Unit column and the expected length of time (as a quantity of the stated units of time) is stated in the Expected quantity column.

The rates and Prices entered for each item includes for all work and other things necessary to complete the item.

Quote - Parkers.pdf

PART 1

Item number	Description	Unit	Quantity	Rate	Price
.....	See proposal in Annex 2				
....	Quote - Parkers.pdf	A1R Costings.xlsx	A1R Costings.xlsx		
.....					
...					
.....					
The total of the Prices for Part 1					

PART 2

Item number	Description	Unit	Quantity	Rate	Price
.....					
.....					
.....					
.....					
The total of the Prices for Part 2					

Service Information

The Service Information should be a complete and precise statement of the *Employer's* requirements. If it is incomplete or imprecise there is a risk that the *Contractor* will interpret it differently from the *Employer's* intention. The Service Information should state clearly the part of the service which is to be carried out by the *Contractor* and which does not require the *Employer* to issue a Task Order. This part of the service is priced in Part 1 of the Price List. Information provided by the *Contractor* should be listed in the Service Information only if the *Employer* is satisfied that it is required, is part of a complete statement of the *Employer's* requirements and is consistent with the other parts of the Service Information.

1 Description of the service

Give a detailed description of what the *Contractor* is required to do. This may include drawings.

..... See Annex 1

.....

2 Specifications

List the specifications that apply to this contract.

Title	Date or revision	Tick if publicly available
..... See Annex 1.....
.....
.....
.....
.....
.....
.....

Service Information

3 Constraints on how the Contractor Provides the Service

State any constraints on the sequence and timing of work and on the methods and conduct of work including the requirements for any work by the Employer.

..... See Annex 1

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4 Requirements for the plan

State whether a plan is required and, if it is, state what form it is to be in, what information is to be shown on it, when it is to be submitted and when it is to be updated.

..... See Annex 1

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Service Information

5 Services and other things provided by the *Employer*

Describe what the *Employer* will provide, such as services (including water and electricity) and “free issue” Plant and Materials and equipment.

Item	Date by which it will be provided
.....
.....
.....
.....

8

Service Information

6 Property affected by the *service*

Give information about any property affected by the *service* and any other information which is likely to affect the *Contractor's* work.

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SPECIFICATION - Bulk Cell Culture Facility

Introduction:

The National Institute for Biological Standards and Control (NIBSC) has identified that it requires the advanced therapies laboratory to be made into Bulk Cell Culture (BCC) facility under positive pressure.

Bidders should show examples of their works on similar related projects that they have previously undertaken. A site visit will be mandatory in order to submit a bid.

Containment

The BCC facility is to be a self-contained Laboratory Suite. It is designed in layout and will be required to be engineered as a **positive** pressure cascading set of labs. The general make-up of the labs will be sealed with vinyl throughout, with HEPA supply housings and filters.

All labs will be individually pressure air tested with NIBSC calibrated site tester as part of the commissioning stage. The sustained pressure in the lab under test conditions are $\leq 1\text{m}^3/\text{m}^2/\text{hr}$ @ +50Pa.

The Users preferred provision with respect to service outlets etc. is recorded on the plan layout drawing. The reflected ceiling/wall and floor plans indicated are required or existing locations i.e air grilles, luminaires and other ceiling-mounted items. The drawing plan will show the required layout by the area owner and the project manager. Detailed discussions will take place in order for any issues to be resolved or highlighted prior to award. This will be discussed during the site visits. However, all items are indicative and represent a nominal option; they do not represent an engineer-designed and validated engineering solution, which is the remit of others and to the instruction of the Client.

Project Description

The project comprises refurbishment of an existing suite of laboratories from one product process to another. The existing area will be stripped back to accommodate the new layout and newly formed positive pressure labs.

The air handling, supply and extract situated on the roof will need modification to achieve the desired pressure regime throughout the suite.

Recirculated Microbiological safety cabinets that NIBSC will provide, will be sited in each of the labs and will not form part of the extract system, but special attention will need to be thought through to site them safely within the lab without being affected by supply or extract air flows.

Other items to be installed will be plasterboard partition walls, trunking & electrics, Trend BMS, Cat 7 class F data cabling, benching and shelves, doors, swipe access, luminaries, fire alarm modifications.

The proposed plan layouts are included within this tender package.

In addition to the main suite of labs being upgraded, a small office next door to the BCC, will also be upgraded to a PCR equipment facility.

Site

The site for the works is the existing Advanced Therapies department at NIBSC, located in the North lower building adjacent to the stores area.

Access to these labs will be via the store's courtyard, through a designated corridor. A storage unit will need to be provided to keep contractor materials in, as space is limited at NIBSC. The container can be located at the top of site and this can be shown during the site visit.

Energy conservation

Any new lights must be LED with energy saving ideals and solutions included where applicable.

Services

HEPA filtration is required on the supply side. Housings are to be fully sealable in accordance with ACDP regulations, and the HEPA's to be gel sealed against the housing. As this is a major penetration to the lab, very special care will need to make sure that NO leakage egresses through. Differential pressures must be provided so we can see the cleanliness of the filters. This can be shown with a magnehelic or equivalent gauge.

All HEPA filters are to be standard size throughout (610 x 610 x 149) the building to avoid duplication of spares and are to be H14 99.99% efficient or better. All terminal HEPA's to be able to be safely changed from inside the laboratory. All filters must be DOP tested. Our Trusted and preferred supplier for filters are Jasun filters.

Survey site setup Information

A full survey is to be undertaken to establish and verify actual site dimensions, prior to further design work and the subsequent construction phase.

The contractor is to allow for container storage or any site setup. Toilets, catering facilities, power and water can be provided with the Project Engineers permission.

Partition Wall Removal Works

Existing labs 5132, 5136 and 5137 will have the stud partition walls removed. New partition walls will be erected to form the new layout. This is shown on the drawing.

Strip out

The rooms will be stripped of lighting, power sockets, and surface mounted alarms.

Cables will be pulled back outside the room. Benching will need to be carefully removed as this will be used to furnish the new layout where possible.

A contractor's skip can be located in the local area but must be maintained so no rubbish is left around it, or be blown around by the wind. "Contractors engaging in refurbishment or new works on MHRA sites are required by law to control their waste arising's. If waste skips are being brought onsite these should, where possible, be controlled by the site service provider; ensuring that a 'duty of care' is maintained. **If a contractor brings his own skip onsite they should provide details and waste licenses/permits of the waste contractor and site where the waste will be disposed of as described above."**

Supply & Extract AHU units.

The existing HVAC ductwork will need to be re-configured on the roof and within the labs to give the required air flows and pressure regimes. The Supply AHU and the extract unit will remain in situ. All heating coils will need to be re-installed along with any sensors placed in the ductwork.

Should your design, require more holes to be cut through the roof membrane, all holes, upstands, and membrane is to form part of your return and be costed. Equally if your design requires less holes, please allow to cap off any penetrations making them watertight.

Note. The roof is supported by triangular roof trusses and these will need to be missed should your design need more penetrations. These trusses can be shown during the site visit.

New Walls

The new wall covering will consist of:

Two layers of 12.5 mm plasterboard. fixed to either a wood or proprietary metal suspension system. The joints must be offset from the joints of the other plasterboard and all edges are to be butted together with joint filler. All screw holes and joints will be sealed with joint filler.

All areas that require vinyl coverings are to be fully prepared prior to covering. The interfaces of the walls to ceilings and walls to floor must be fully sealed using trims, that will form a sealed joint. All plasterboard joints are to be taped and jointed, prior to vinyl covering.

On top of the plasterboard, 2mm vinyl will be applied, either Altrosmooth intrinsic or Polyflor equivalent.

Vinyl: Colour WHITE.

Lab 1-4, Inside Walls Only

Floor: 2 mm Polyvinyl flooring (**GREY**) with hospital coving some 100mm up each wall using minimum 40 mm radius supporting infill. All joints are to be welded and sealed.

Walls: 2 mm Polyvinyl flooring (**WHITE**) with hospital coving 100mm up and across each wall using minimum 40 mm radius supporting infill. All joints are to be welded and sealed.

New Ceilings

The new ceiling will be a metal frame and plasterboard construction. All the joints of the plasterboard and all edges are to be butted together with joint filler. The interfaces of the walls to ceilings and walls to floor must be fully sealed and be compatible with the wall trims. All plasterboard joints are to be taped and jointed. The finished ceilings will have a minimum of two coats of Dulux diamond white emulsion applied.

New Doors

The new doors will be the same design and colour to the existing doors within the suite. All ironmongery, door closures, flush bolts, vision panels and handles will be as existing. All doors throughout the suite will be a leaf and a half, giving a clearance of approximately 1100mm.

Electrical

- I. Each lab will need to have its own dedicated circuit, protected by a trunking mounted RCD. These are existing in the present lab and can be re-used where possible.
Dado trunking can also be re-used where possible.
- II. RCD's are to be installed within the trunking within the office/lab current site specification is a Legrand (40 amp I-thermal) and 30mA trip rating to BS EN61008-1

MSC's:

- III. The MSC in each of the labs must be on the lab circuit. These MSC is already backed up by separate UPS within the lab.

Lighting:

- IV. Surface mounted LED lighting on the plaster board ceiling to provide 450 lux @ bench level switched by PIR / Daylight control. Agreed lights are to be on the emergency lighting circuit.
- V. Emergency lighting will be a non-maintained bulkhead installed to an agreed position usually at the exit area within the Lab.
- VI. Trunking to provide power to the lights will all be surface mounted. Screw fixings through the trunking into the ceiling or walls must be sealed. Marco Elite 60 dado trunking to be utilised for Lab electrical outlets.
- VII. All new electrical work shall be carried out in accordance with *IEE Wiring Regulations Eighteenth Edition and relevant current.*
- VIII. *Isolations will be carried out in accordance with SOP 6373*
- IX. Cpc' (circuit protective conductors) shall either be an incorporated core or a separate cable, for SWA's the armour is for mechanical protection.
- X. All lab/office lighting refurbishments would require the addition of a double pole switch to enable future local isolation maintenance procedures, to be inserted into every circuit to isolate live and neutral within the Lab/office lighting circuits.
- XI. Cable trays shall be perforated and supplied in nominal 2,400mm lengths manufactured from galvanised mild steel complying with BS 1499 (Classification CR4/GP). Cable tray accessories shall be supplied by the Cable Tray Manufacturer; only where these are inadequate to meet special conditions can site-fabricated accessories be accepted with the approval of the Supervising Officer. Holes cut in cable trays for the passage of cable shall be drilled and suitably bushed
Fixing of cable trays shall unless otherwise stated be at intervals not exceeding 1,200mm and at 200mm from bends of intersections. Fixing shall be either by brackets made by the Cable Tray Manufacturer or brackets made from "Unistrut" and/or "Unirax" sections whichever are preferred.

Trays up to but not including 150mm wide shall be 20 SWG thick: all cable trays shall be of the return flange-type.

Unless otherwise required wiring, tray and accessories shall be finished in hot dip galvanised after manufacture and sections of wiring trays shall be jointed together with 6mm diameter mushroom headed safety bolts and nuts to comply with BS 1494, Part 1. Adequate copper earthing strips shall be fitted at every joint. A minimum clear space of 25mm shall be left behind all cable trays.

Power distribution and containment Trunking

- I. Marco Elite 60 dado trunking to be utilised for Lab power outlets. This trunking accommodates the Cat 7 data coms cable and meets the IT standard for data cable bends and terminations.
Site standard MK accessories (white two gang switched outlets).
Power to MK outlets to be a minimum of 4mm CSA.

Earth Bonding

- II. The bonding of the electrical installation is to be carried out to the requirements to the current IEE Regulations and the Electricity Boards recommendations, special attention to be paid to the bonding of extraneous metalwork.

Inspection & Testing

- III. The installation shall, upon completion, be inspected and tested in accordance with the standard procedure within the IEE Regulations.

The Contractor's attention is drawn to the electronic components within the control system which is disconnected before carrying out any tests.

Upon completion of the project the whole installation shall be inspected and completion and inspection certificate will be submitted in accordance with the IEE Regulations Appendix 1.5

Labels

- IV. All items of equipment and sockets, data outlets etc. shall be fully identified with a label showing which distribution board or cabinet they are fed from.

Penetrations

- V. It is imperative that penetrations of the room fabric for fixings, services etc. are kept to an absolute minimum to provide containment. Of particular importance are fixings for proprietary dado trunking and shelf support structure, where all fixings should be sealed. All electrical sockets will be run in surface mounted dado trunking – Marco Elite 60 **Trunking System**. Within the labs it is expected that all services to that area are via one port. The recommended method of bringing the cables into the lab is an IP65 rated electrical housing junction box. Where the cable pass through they must have tight sealable glands.

All supply and extract ductwork that is to be extended to meet the new wall and ceiling surface, is to be fully sealed and tested prior to mounting surface mount grilles.

Equipment re-location

It will be necessary to re-locate existing equipment (fridges/freezers etc.) to new positions. These will be detailed during discussions when on site.

Air Pressure

The air pressure in the laboratory 1-4 must be $@+45 \pm 5$ Pa. The corridor pressure must be $@+30$ Pa ± 5 . The lobby is to be $@+15$ Pa ± 5 . A cascade effect must always be towards the lobby.

Data Outlets

14 x double data Trend outlets as shown on drawing. The data cable will be CAT 7 class F. Please see drawing. Nexans approved installers, please see separate spec.

Card Swipe Access Control

The door from the main corridor and the lobby door that leads into the lab area are to have access control via a Mag-lock to prevent unauthorised access. The access control will be via swipe / Pin Identity cards that are compatible with the rest of the Institute, i.e. Card Reader Model 1 D48 Card and Pin code magnetic stripe reader for external doors 2 L48 Card only magnetic strip reader for internal doors.

- Proximity Swipe Card.
- On the inside a Break Glass Exit to be installed in case of emergencies.
- On the inside a Release To Exit push button
- Door A & B are interlocked via magnetic blocks so when Door B is opened, Door A cannot be opened and vice versa.
- Access to the outer Door A via Proximity Card & PIN.
- Adjacent to the Proximity Card and PIN reader is a key override switch that turns off the door controls. The key for this is to be kept in a key safe located on Door A.
- When Door A is closed, Door B is unlocked by pressing the door release button.
- Exit from Door A requires Door B to be closed and an exit push button pressed.
- There is a Break Glass Exit for Door A and B in case of emergencies.
- A Dead bolt manual key lock is to be installed in Door A so that it can be isolated.
- The mag locks must release in the event of a fire as per NIBSC fire evacuation procedure. (Tyco are our trusted and preferred contractor).

Benching & Shelves:

Generally, cantilever bench framing (epoxy-coated steel; RAL colour Black, 30% gloss) with solid grade laminate work surfaces 700mm deep, 950mm FFL with 40mm upstand at the rear (Trespa 'Athlon' colour Sand) benching arrangements as indicated on layout.

Two tiers of shelving (Trespa 'Athlon') 300mm wide, please see drawing. All exposed edges radiused (40mm) as crescent profile. This is to be mounted on twin slot adjustable spur bracket system.

Our trusted contractor is ALS.

Trend:

25 points across the suite. A detailed specification of the BMS Trend system requirements is provided.

Trend BMS outlets are to be installed for monitoring temperature conditions on the freezers and incubators conditions. Our trusted and preferred contractor is DDE.

JCI fire Alarms and Smoke Heads

The contractor shall contact ADT/JCI Fire for all required works around the Fire alarm sensors or removals and relocations. Updates may be required on our fire alarm systems and graphics in reception.

Red Light

Labs 1-4 is to have a switched, powered red light above the door or the corridor side. This is to notify staff not to enter whilst the light is on.

CO² Outlets

Labs 1-4 are to be installed with 2 x CO² outlets for the incubators. The CO² cylinders (X2) are to be positioned either next to the existing cylinders in the corridor or ideally outside by the store's gates. If outside by the gates, then a cage will need to house the cylinders and secured to the ground.

The cylinders are to have an Auto-change manifold manufactured by Tech-Master. The manifold is to have a 4-20ma connection and a Trend cable linked back to the store's gas panel showing when the cylinders need replacing. The cylinders must have the appropriate securing bracket and chained secure. The regulator gauge is to be in the range of 0-6 bar. The pipework is to be installed with stainless steel. The installed gas lines must be pressure tested for a minimum of 2 hours. This must be witnessed by the Project Engineer. Our trusted and preferred contractors are Multigas Ltd, and DDE for the Trend.

O₂ Sensor monitoring (CO₂ Ax60+ Carbon Dioxide Safety Monitor)

Please provide a new CO₂ monitor which will need to be sited near the CO₂ cylinders out in the main corridor next to our existing ones and set up. The alarm from the central interface will need to connect to the Trend BMS so that it links to NIBSC emergency response team. (DDE (Trend)). Our trusted contractor is Scientific Laboratory Supplies.

PCR Equipment room

The existing office area will be stripped back completely. The walls will be plaster boarded, taped and jointed, and painted white using a minimum of 2 coats of Dulux diamond white emulsion. The floor is to be finished in grey vinyl as described above. Trespa benching will form part of the perimeter benching and be cantilever bench framing (epoxy-coated steel; RAL colour Black, 30% gloss) with solid grade laminate work surfaces 5 deep, 950mm FFL with 40mm upstand at the rear (Trespa 'Athlon' colour Sand) benching arrangements as indicated on layout.

The room will have Cat 7 class F data ports, power socket above and below the benching and trend BMS ports under-bench to monitor fridges and freezers.

Lab 1

Above Bench Power Sockets	12 Twins
Under Bench Power Sockets	2 Twins
Above Bench Trend	4
Under Bench Trend	2
CO ² Twin regulators	1
Above Bench Data	3 Duel
Pressure Regime	+45 Pa
Air Change rates	15-20/HR
Temperature	21 °C +/- 2 °C
Smoke Head Alarm	1
Trespa Benching	Yes
Shelves	Yes
RCD	1

Lab 2

Above Bench Power Sockets	13 Twins
Under Bench Power Sockets	3 Twins
Above Bench Trend	2
Under Bench Trend	2
CO ² Twin regulators	1
Above Bench Data	3 Duel
Pressure Regime	+45 Pa
Air Change rates	15-20/HR
Temperature	21 °C +/- 2 °C
Smoke Head Alarm	1
Trespa Benching	Yes
Shelves	Yes
RCD	1

Lab 3

Above Bench Power Sockets	13 Twins
Under Bench Power Sockets	2 Twins
Above Bench Trend	2
Under Bench Trend	2
CO ² Twin regulators	1
Above Bench Data	3 Duel
Pressure Regime	+45 Pa
Air Change rates	15-20/HR
Temperature	21 °C +/- 2 °C
Smoke Head Alarm	1
Trespa Benching	Yes
Shelves	Yes
RCD	1

Lab 4

Above Bench Power Sockets	10 Twins
Under Bench Power Sockets	2 Twins
Above Bench Trend	2
Under Bench Trend	2
CO ² Twin regulators	1
Above Bench Data	3 Duel
Pressure Regime	+45 Pa
Air Change rates	15-20/HR
Temperature	21 °C +/- 2 °C
Smoke Head Alarm	1
Trespa Benching	Yes
Shelves	Yes
RCD	1

Corridor

Above Bench Power Sockets	5 Twins
Under Bench Power Sockets	7 Twins
Under Bench Trend	7
Above Bench Data	2 Duel
Pressure Regime	+30 Pa
Air Change rates	15-20/HR
Temperature	21 °C +/- 2 °C
Smoke Head Alarm	2
Trespa Benching	As Existing
RCD	1

Lobby

Interlocked Doors	Yes
Pressure Regime	+15 Pa
Air Change rates	15-20/HR
Temperature	21 °C +/- 2 °C
Smoke Head Alarm	1

PCR Equipment facility

Above Bench Power Sockets	13 Twins
Under Bench Power Sockets	6 Twins
Under Bench Trend	6
Above Bench Data	3 Duel
Pressure Regime	0 Pa
Air Change rates	10-15/HR
Temperature	21 °C +/- 2 °C
Smoke Head Alarm	1
Trespa Benching	See drawing
RCD	1

Commissioning

Upon completion of the works, the room will be tested for integrity using a combination of room pressure testing and smoke tests. These works will be carried out by NIBSC. The room must pass these tests to be accepted.

The labs will need to be balanced to the MSC's in each lab so as not to affect the critical pressures in the MSC. All installations for the gas and electrics are to have certificates showing values of acceptance.

Any instruments used, must be UKAS certified with an approved calibration test sheet. These sheets and test results must form part of the electronic O and M file.

Personnel carrying out the test and inspection must be suitably qualified to either BS 2391/2394/2395

Maintenance

All plant and its subsidiary components must be easily accessible for routine servicing and maintenance.

Electronic O and M manuals will be provided at the end of the works, showing as installed drawings, routine service parts and the frequency of maintenance. Electrical certificates along with information etc. on manufacturer's literature must also be included.

The Trend BMS logic control is to automatically adjust the room pressures via inverter and suitably installed dampers that prevent "hunting" adjustments to accommodate the various configuration of use of the MSC extraction.

Other

Coat hooks (X 20) various locations

Cost savings and options

Please provide alternative cost saving ideas or options on how this project can save money or time, and still give us the high quality required.

Please provide your schedule of works (Gantt Chart)

Annex 2

Proposal/Quotation



Revised Proposal
BULK CELL CULTURE F