The Leonard and Dora Colebrook Laboratory

NIHR Imperial BRC facility

We provide state of the art microbiology research space to support translational research in antimicrobial resistance (AMR).

The Colebrooks' History

The laboratory is named in honour of brother and sister Leonard and Dora Colebrook, who worked at Queen Charlotte's Hospital in the 1930s.

Leonard undertook the first trials of antibacterial treatments, evaluating Prontosil Red, a sulfonamide, to treat streptococcal puerperal sepsis. Within a year, the use of sulfonamide became widespread and dramatically reduced mortality from sepsis.

Dora's research showed that the same group A streptococci that endanger women around childbirth also circulate in the general population and cause sore throat infections. Her work helped to establish good hygiene practices within the medical community.

Our Service

- Wide variety of specialist equipment
- Biobanking facility
- Pathogen genome sequencing through <u>BRC Genomics Facility</u>

Contact us

Laboratory Manager: <u>Dr Stephanie d'Arc</u>

- s.darc05@imperial.ac.uk
- 0203 311 5756
 - 5th Floor Laboratory Block, Charing Cross Hospital, Fulham Palace Road, W6 8RF

NIHR Imperial Biomedical Research Centre



About Us

Our co-location with the Imperial College Healthcare NHS Trust Diagnostic Laboratory facilitates clinically-relevant studies by both NHS and academic researchers in an environment that is conducive to research.

Application process

The laboratory is governed by an overarching Management Committee comprising representation from Imperial College London, North West London Pathology, Imperial College Healthcare NHS Trust and the NIHR Imperial BRC. The Committee's role is to ensure the remit of the laboratory in enabling AMR research is fulfilled.

To submit a request to use our facility, please fill in the provided Request Form.

Our Mission

The aim of the Colebrook Lab is to promote excellence in multi-disciplinary health protection research while also building research capacity among our students, trainees, and workforce.

Acknowledgements

Any publications arising from research that has used the Colebrook Laboratory must acknowledge support from the NIHR Imperial BRC. This applies to all clinical academic research papers and outputs, regardless of whether they have received direct BRC funding or not.

"[Insert name] acknowledges that Microbiological work/Sample collection/Sample preparation [insert type of work/analysis] was undertaken at the Colebrook Laboratory, a facility supported by the NIHR Imperial Biomedical Research Centre (BRC)".

Specialist Equipment



Bruker MBT Smart MALDI-TOF Biotyper

The MALDI Biotyper[®] is a microbial identification system based on MALDI-TOF mass spectrometry, allowing unbiased identification of microorganisms within a few minutes down to the species level.

Identification modules available: bacteria and yeast, filamentous fungi, mycobacterium and positive blood culture.



bioMerieux BioFire Filmarray system

The BIOFIRE® FILMARRAY® TORCH is a multiplex PCR system that enables simultaneous testing for bacteria, viruses, yeast, parasites, and/or antimicrobial resistant genes. Just 2 minutes of hands on time is needed for the sample preparation and sample loading. Results are available in \sim 1 hour.

Further details of current testing panels can be found on the bioMerieux website.



Aerobic, carbon dioxide and anaerobic incubators

Aerobic incubator can be operated at 7°C above ambient temperature up to +50 oC. Binder C170 incubator can be operated with a CO2 range of 0 vol. -% up to 20% vol.-%. Don Whitley Scientific A35 Workstation is a gas controlled incubator for the culture of organisms under anaerobic conditions.



Teaching microscopes

Two Nikon Eclipse-ci-L microscopes each fitted with a dual head teaching microscope, ideal for use in a teaching setting.



Safety cabinets, fume cupboard, centrifuges and more

The Colebrook Laboratory contains a range of specialist equipment including two class II Microbiological safety cabinets, fume cupboard, refrigerated centrifuges, ice machine, water purification system, water bath, rocker, bench top autoclave, hot block, thermoshaker, rotator, incubating mini shaker, cold storage including ULT freezers & more.

Pricing List

Supported by the NIHR Imperial BRC

- Laboratory bench space
- Communal equipment*
- Fridge and 20°C freezer space
- Sume hood & microbiological safety cabinet
- Aerobic and carbon dioxide incubators

*please check with Lab Manager for further information



MALDI-TOF Biotyper - self-service £6*/target plate spot

- On-site training
- Basic bench use package
- Bruker reagents may be purchased from the Colebrook

Lab at list price, allowing users to only pay for the

reagents required.

*Price valid until March 2025

BioFire Film Array

£50* per panel

- Self-service with training, or full service at an additional charge
- Same day results subject to availability *Price valid until March 2025



Please contact us if you're considering using BioFire system, or to discuss any other service arrangements.



Request for Colebrook Lab space

Personal Details

Name:	CID:
Contact details:	Supervisor if applicable:

Funding

Is this project fully funded? Y/N

Source:

Ethics

Ethics – is ethics approval required Y/N

If yes please provide details

Proposed Research

Project title:		
Details of project:		

Logistics

Start date	-	Colebrook lab use. Full/ Part time (FT/PT). Details if PT

Are there additional personnel associated with this project requiring access to the lab? Y/N

If Yes please complete

Name	CID	Colebrook Lab use. FT/PT. Details if PT.

Equipment list

Colebrook equipment to be used	Equipment to be brought into the lab

Users that damage equipment may be asked to contribute to the associated repair/replacement costs.

Please note ALL consumables are to be funded by the applicant.

Waste disposal

Will any waste require autoclaving prior to discard? Y/N

If yes specify type and quantity – prior approval from NWLP required.

Office space

Is use of the Colebrook write up room required? Y/N

There are two NHS and College PCs available in the Colebrook office. Further PCs are available in the Reynold Building if required. Please discuss your requirements if office space is needed.

Health and Safety/ training

Prior to work commencing the following must be in place:

Risk Assessments – please seek advice from the Colebrook Lab manager prior to submitting.

Occupational Health clearance, Day 1 induction, Laboratory induction – this will detail any further training requirements.

Acknowledgements

Any publications arising from research that has used the Colebrook Laboratory must acknowledge support from the NIHR Imperial BRC. The following wording may be used e.g., "[Insert name] acknowledges that Microbiological work/Sample collection/Sample preparation [insert type of work/analysis] was undertaken at the Colebrook Laboratory, a facility supported by the NIHR Imperial Biomedical Research Centre (BRC)". This applies to all clinical academic research papers and outputs, regardless of whether they have received direct BRC funding or not.

Name ______Signature ______

Completed forms should be returned to the Laboratory Manager – S.darc05@imperial.ac.uk

Colebrook Lab Committee Approval

Approval Stage	Name/ Signature	Date	
Preapproval			
College			
NWLP			