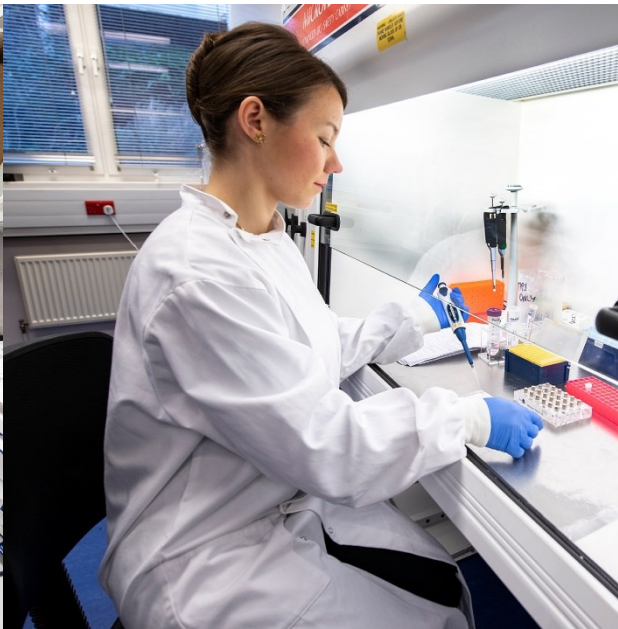


Using open research practises to celebrate Team Science - A technician's viewpoint

Lee Murphy
Edinburgh Clinical Research Facility
University of Edinburgh



@LeeMurphyCRF





Genomics

Genetics Core



Technicians

Technicians Steering
Committee
Technology Specialists
Network



Core Facilities

CMVM Core Facilities
Network
Una Europa – Una.Resin



Research Culture

Research Cultures Forum

Core Facilities

College of Medicine and Veterinary Medicine SHARED RESEARCH FACILITIES



Clinical and pre-clinical imaging

We offer world-class clinical imaging systems to meet research and diagnostic needs.



Light imaging

State-of-the-art facilities for optical image acquisition from biological samples and data analysis.



Mass spectrometry

Detect, identify and quantitate molecules in biological and clinical samples.



Genetics

Techniques to study heredity and the variation of inherited characteristics.



Flow cytometry

We have three facilities of state-of-the-art flow cytometry equipment, and offer training and expertise.



Drug discovery

World-class platforms with a track record in successfully translating projects from target identification through to clinical evaluation.



Clinical research

We have processes, teams and technologies in place to support clinical research from approvals to sample analysis.



Preclinical research

Animal and cellular models, biomarker discovery and analysis.



Omics

State of the art facilities to enable transcriptomics, metabolomics, steroidomics and other analyses of signalling pathways and secreted factors.

Provide open and equitable access to sophisticated equipment, technologies and workflows.

A home of expertise – staffed by dedicated and skilled technicians.

Provide training and consultation to help researchers in their project planning and implementation.

Technician Commitment

The Technician Commitment is a sector-wide initiative to address key challenges facing technical staff working in research, teaching and innovation.

VISIBILITY

Ensure all technicians within the organisation are identifiable and that the contribution of technicians is visible within and beyond the institution

RECOGNITION

Support technicians to gain recognition through professional registration and external awards schemes

CAREER DEVELOPMENT

Enable career progression opportunities for technicians through the provision of clear, documented career pathways

SUSTAINABILITY OF TECHNICAL SKILLS

Ensure the future sustainability of technical skills across the organisation and that technical expertise is fully used



GATSBY



Open Research – my short journey



Edinburgh Open Research



<https://edin.ac/3wbHHkz>

The Buffet Approach to Open Science

Posted on April 16, 2023 by Christina



<https://cogtales.wordpress.com/2023/04/16/the-buffet-approach-to-open-science/>

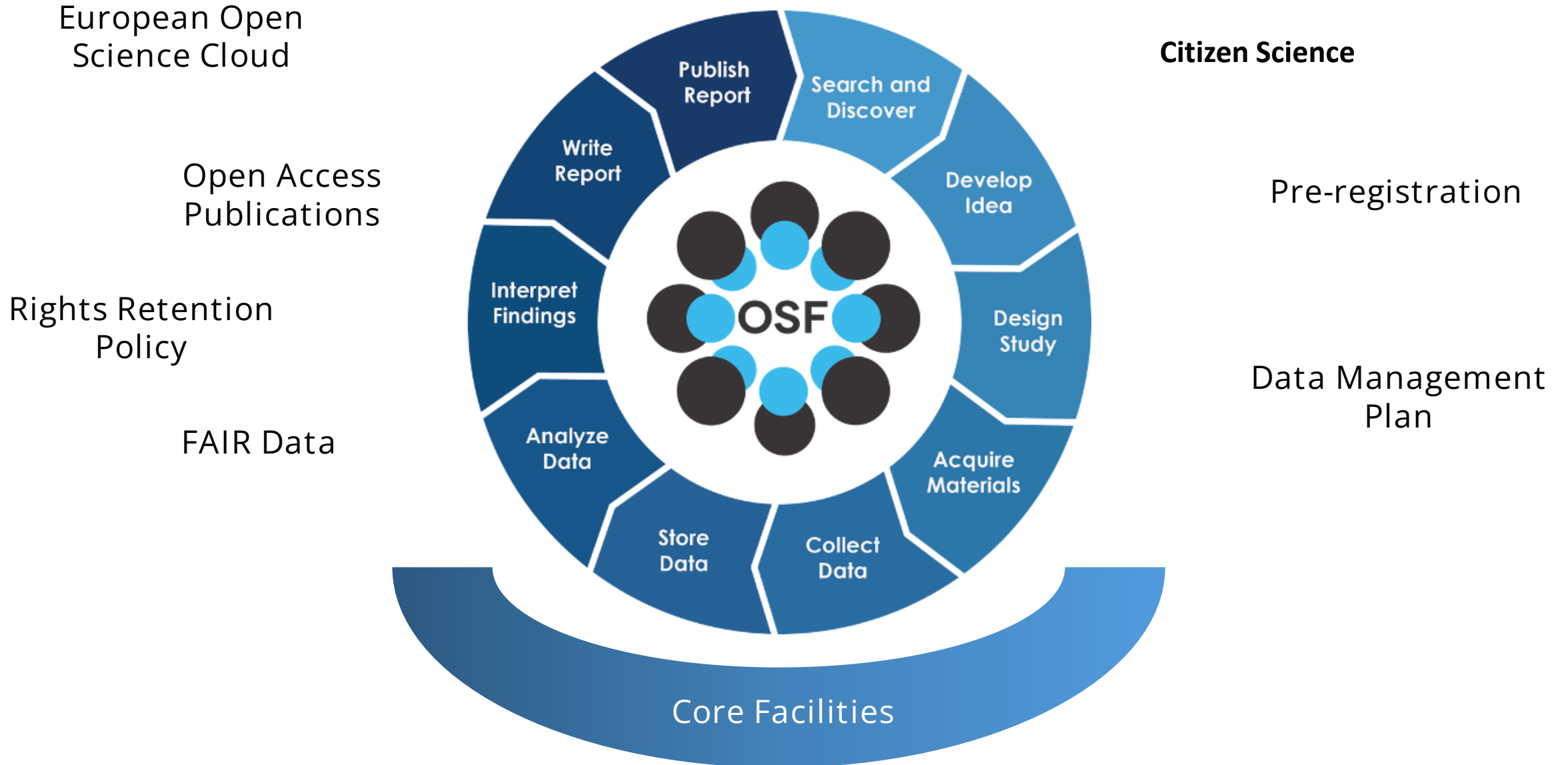
Research Life Cycle

Pillars of Open Research

- Culture Change
- Future of Scholarly Publishing
- FAIR Data
- European Open Science Cloud
- Education & Skills
- Recognition & Rewards
- Next-generation Metrics
- Research Integrity
- Citizen Science & Participatory Research




Research Life Cycle



New methods

Dec 08, 2023

 DNA extraction from rectal mucosa biopsies and matched faecal samples taken from surgery for microbiome analysis

DOI

dx.doi.org/10.17504/protocols.io.eq2lyj15w1x9/v1

Lee Murphy¹, Alan Maclean¹, Katarzyna Hafezi¹

¹Genetics Core, Edinburgh Clinical Research Facility, University of Edinburgh



Lee Murphy

Genetics Core, Edinburgh Clinical Research Facility, Univers...




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 RUN

 COPY / FORK

Standard Operating Procedures

The screenshot shows the OSFHOME interface. At the top left is the OSFHOME logo and a dropdown arrow. At the top right are links for 'My Projects' and 'Search'. Below the header is a section titled 'My Projects Browse and organize all your projects'. Underneath, there is a breadcrumb trail: 'All my projects and components >'. A sidebar on the left is titled 'Collections' and contains several links: 'All my projects and components' (highlighted), 'All my registrations', 'All my preprints', and 'Bookmarks (0)'. Below the sidebar is a 'Contributors' section with a pagination indicator '< 1/3 >'. The main content area is a table with two columns: 'Name' and 'Contributors'. The table lists several projects, with the first one highlighted in blue.

Name	Contributors
- ECRF Genetics Core Standard Operating Procedures (SOPs)	Murphy
○ RNA Extraction SOPs	Murphy
○ DNA Extraction SOPs	Murphy
+ 2024 University of Edinburgh Lunch & Learning Workshops	Steltenpohl, Smith + 18
+ Lee Murphy Presentations	Murphy

Reporting data



5.8 Taqman Genotyping Report

Taqman Genotyping Report

1. Project Information

Project Study Number	E222563
Investigator	Sara Brown
Report By	Katarzyna Hafezi
Report Date	25/04/2024

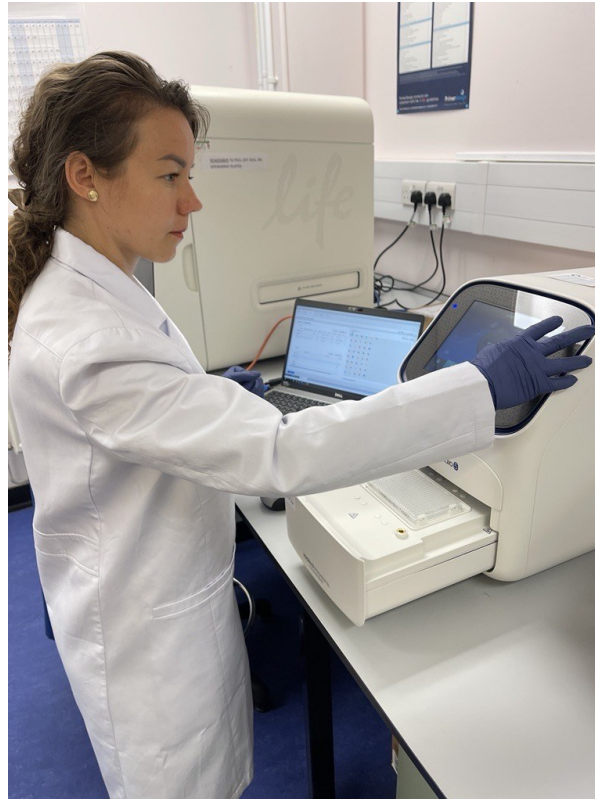
2. Method Information

Genotyping SOP	13.8 Performing SNP genotyping on the <u>QuantStudio 5</u>
Scanner	Applied Biosystems by Life Technologies <u>QuantStudio 5</u> Real Time PCR System (#272533994)
Analysis Software	<u>QuantStudio Design & Analysis Software v1.5.3</u>

3. Summary of Genotype Information

ABI Assay ID	NCBI SNP Reference
C_15942468_10	rs2212434
2282del4	Custom designed assay
R2447X	Custom designed assay
R501X	Custom designed assay
S3247X	Custom designed assay

MIQE guidelines



Raw data: .eps files



Exported Data: .xls files

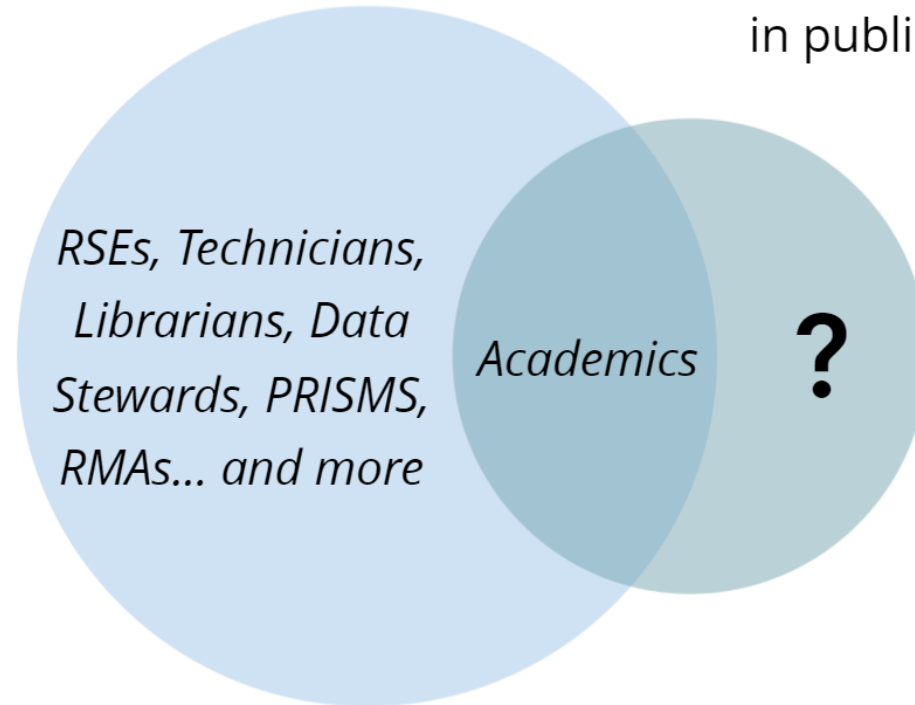


Analysed Data: .txt files

Publications

People vital to research

People named
in publications

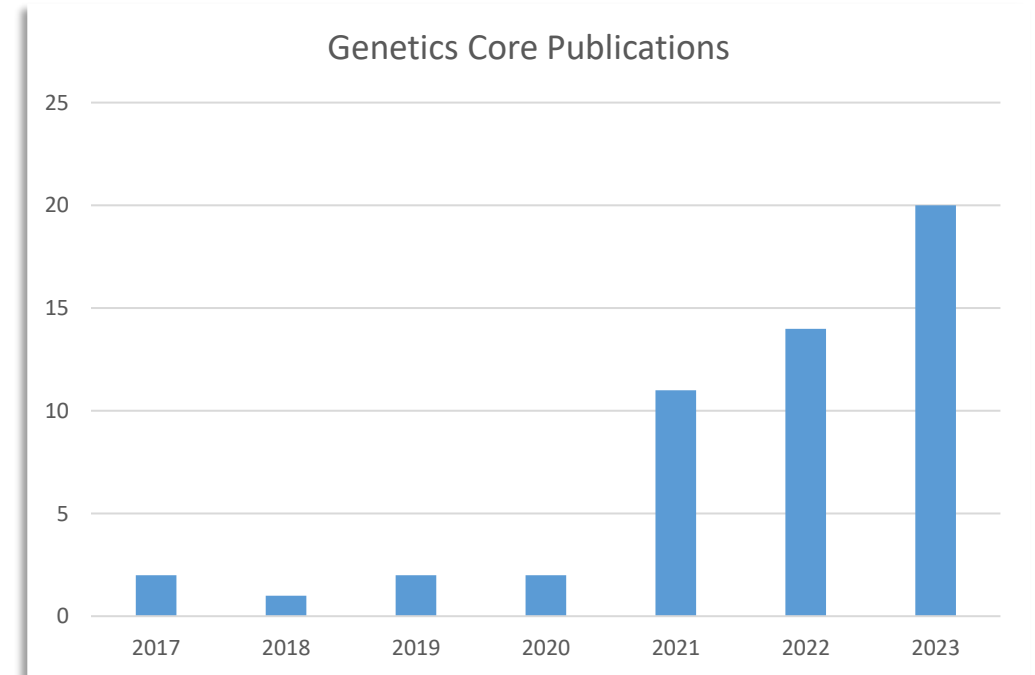


The Venn of academic importance and recognition

Publications

CMVM Fair Publication Policy

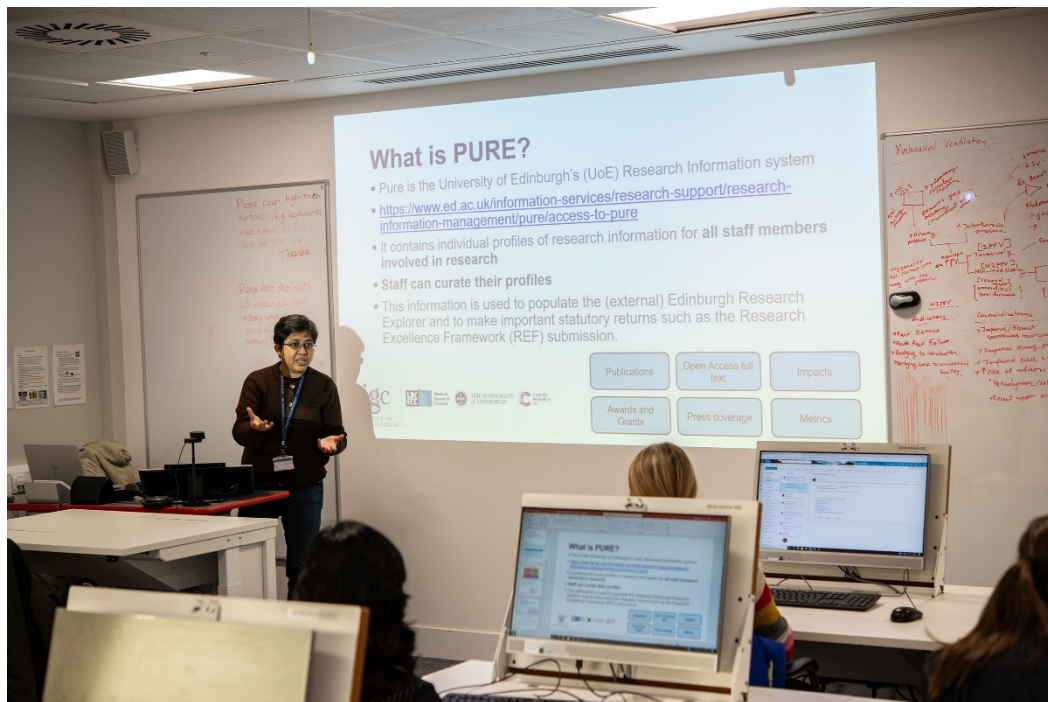
It is important to recognise the contributions of technical staff to research in all instances. Core facilities in particular provide the wider research community with state-of-the-art instrumentation and expertise, which actively adds to and improves research outputs and funding bids, and without which the College could not operate.



Publications

Developing your digital profile

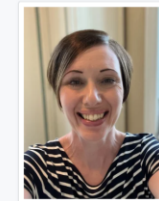
This session is aimed at Technicians and professional service colleagues who are research active and have a publication record, and who would like to raise their visibility and profile.



ORCID



Home Research output **Profiles** Research units Projects Datasets Prizes Activities



Angie Fawkes

MS.
Deputy Genetics Manager, [Deanery of Clinical Sciences](#)
<https://orcid.org/0000-0002-0657-8319>

Overview Fingerprint Network Research output (12) Similar Profiles (12)



Angie Fawkes

Deputy Genetics Manager



Edinburgh Clinical Research Facility

✉ Email: afawkes@ed.ac.uk

+ Biography

+ Publications

Recognising the value of technical expertise



Funding opportunity

Mid-range equipment for biosciences research: ALERT 2022

Opportunity status:	Open
Funders:	Biotechnology and Biological Sciences Research Council (BBSRC)
Funding type:	Grant
Total fund:	£20,000,000
Award range:	£200,000 - £1,500,000
Publication date:	29 September 2022
Opening date:	21 October 2022
Closing date:	15 December 2022 16:00 UK time

Apply for funding for mid-range equipment for research across BBSRC's scientific areas. This is the latest round of ALERT funding.

You must be a researcher or a [research technical professional](#) from an eligible UK research organisation to apply for funding.



Matthieu Vermeren
Head of Light Microscopy Facility, CRM

£451,000 – Akoyabio PhenoCycler
Spatial phenotyping system
£399,000 – Leica FALCON
imaging system



Pamela Brown
Biomolecular Core Manager, CRH

£138,500 – Refeyn Two^{MP}
Mass photometer system

BBSRC ALERT 2022 success rates:
Overall = 46% (42/91)

RTP inclusive = 56% (22/39)

RTP led = 70% (7/10)

Recognising the value of technical expertise



£16m investment to power up people who play vital role in research

Mar 18, 2024 | News

The UK's Research Technical Professional (RTP) community has received a £16m cash injection to power up technical talent and expertise in higher education, research and innovation. The multi-million-pound grant has been awarded by the Engineering and Physical Sciences...

Delivering Knowledge, Skills and Opportunities to RTPs Nationally Leveraging the UK Technology Specialist Network (TSN)

- £1.6M - Edinburgh; Manchester; Natural History Museum; Newcastle; Nottingham, Southampton; Warwick & York
- RTP Careers & Pipelines
- Visibility & Knowledge Exchange
- **Skills sessions & Demand-driven training**

Funding opportunity

UKRI Digital Research Technical Professional Skills NetworkPlus

Opportunity status:	Open
Funders:	Natural Environment Research Council (NERC) , UK Research and Innovation, Arts and Humanities Research Council (AHRC) , Biotechnology and Biological Sciences Research Council (BBSRC) , Economic and Social Research Council (ESRC) , Engineering and Physical Sciences Research Council (EPSRC) , Science and Technology Facilities Council (STFC) , Innovate UK
Funding type:	Grant
Total fund:	£9,500,000
Award range:	£1,000,000 - £2,000,000
Publication date:	22 April 2024
Opening date:	22 April 2024 9:00am UK time
Closing date:	27 June 2024 4:00pm UK time

Open Research Placements for Technicians

- **Between three and six days per month (half-days possible)**
- **Over two to four months**
- **Placements will be located in Argyle house and/or Libraries**
- **Placements can support hybrid and flexible working**

Contact: kerry.miller@ed.ac.uk



Samples →



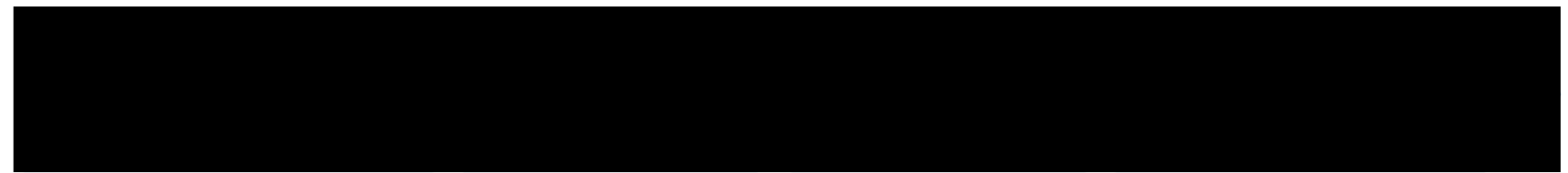
→ **Data**



<https://edin.ac/genetics-core>



Samples →



→ **Data**



Sample tracking through Laboratory Information Management System

Custom protocols on Protocols.io

ORCID

Pure

SOPs on OSF

Publish platform validation
process and data

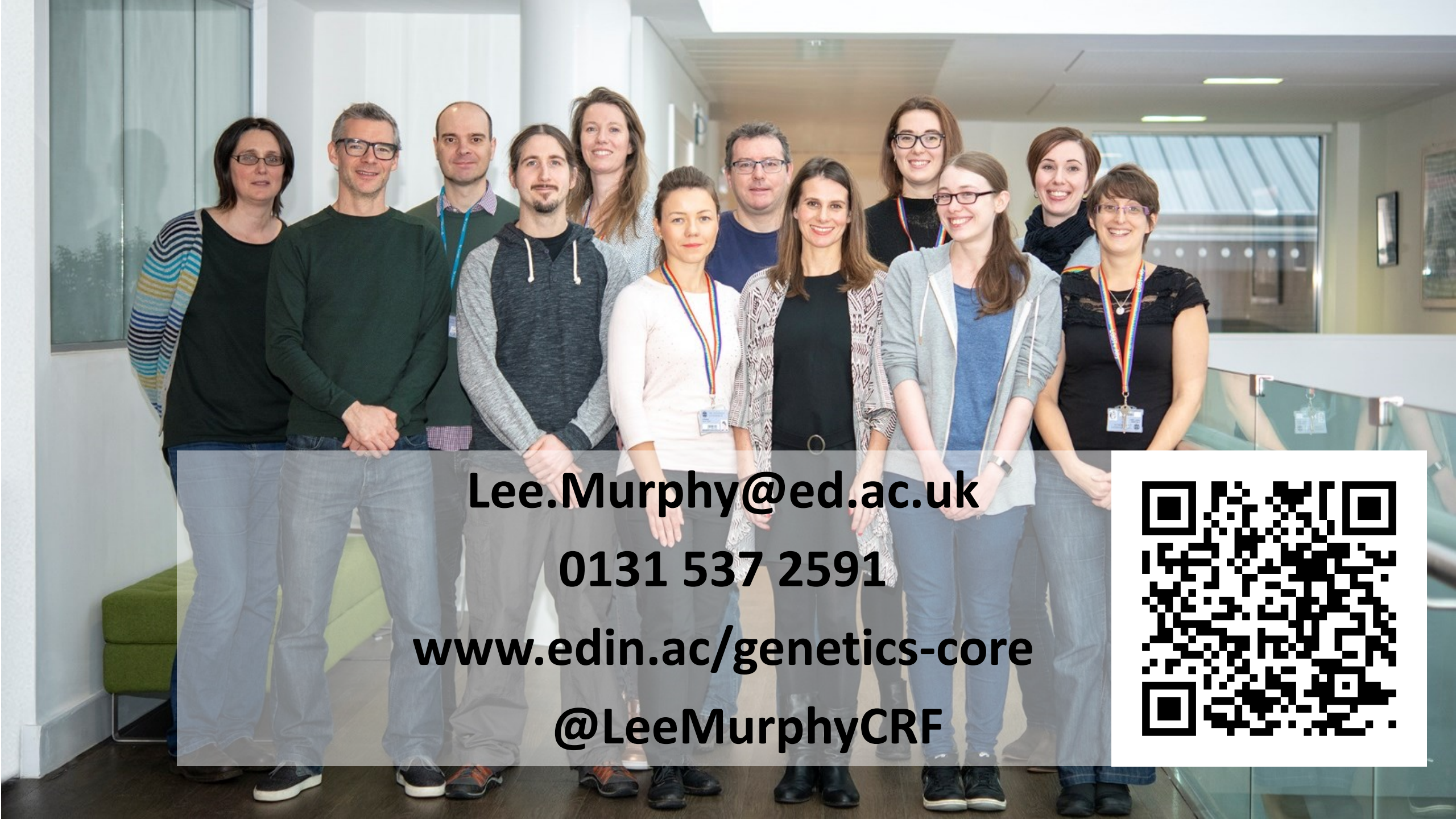
Reporting standards

Electronic Lab Notebooks

Data dictionary

Equipment RRIIDs

Host Validation
data on datavault



Lee.Murphy@ed.ac.uk

0131 537 2591

www.edin.ac/genetics-core

@LeeMurphyCRF

