Wessex Genomics Laboratory Service

Wessex Genomics Laboratory Service (WGLS) provides a comprehensive range of genomics services to the Trust, general practitioners and also to other external NHS and private sector organisations.

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Key contacts

Salisbury Laboratory	
Email Enquiries	shc-tr.WRGLdutyscientist@nhs.net
Telephone Enquiries	023 81 207100
Southampton Laboratory	
Email Enquiries	WGLS_cancergenomics@uhs.nhs.uk
Telephone Enquiries	023 81 206638
Other Key Contacts	
WGLS Operations Manager	Charlotte.beard@uhs.nhs.uk
WGLS Quality Manager	Bethany.broadbent@uhs.nhs.uk

About our services

Wessex Genomics Laboratory Service (WGLS) is part of the Central and South Genomics Laboratory Hub.

We provide an accredited genetics and genomics service for a core population of 3 million in the South Central (formerly Wessex) region of England, as well as specialist testing for other centres as part of the NHS Genomic Medicine Service (GMS). We accept samples referred by health care professionals from the UK or abroad, and offer high-quality testing, analysis, interpretation and reporting for a wide range of genetic conditions.

Service hours

Monday to Friday, 9am to 5pm (Southampton Site)

Monday to Friday, 9am to 5:30pm (Salisbury Site)

Closed Weekends and Bank Holidays

Services offered

From April 1st 2021, NHS genetic testing in England is specified by the National Genomic Test Directory and referral criteria should comply with the associated eligibility criteria. Referrals outside the scope of the Test Directory and its associated criteria will not be funded by NHS England and will be subject to a charge.

Postal Address

Salisbury:

Salisbury District Hospital (SDH North)

Salisbury

Wiltshire

SP2 8BJ

Southampton:

Duthie Link Building, Mail point 225

University Hospital Southampton NHS Foundation Trust

Tremona Road

Southampton

Hampshire

SO16 6YD

Consent

Please see the following document available on the UHS website: Consent to Examination or Treatment: Policy

Patients attending venesection services will be asked to give verbal consent prior to blood specimens being collected. All consent is inferred by the laboratory when a sample is submitted having been willing collected from the patient, for example venipuncture or biopsy.

In addition to the above, the WGLS (Salisbury) referral forms include the statement “in submitting this sample the clinician confirms that consent has been obtained for testing and storage. Anonymised stored samples may be used for quality control procedures including validation of new genetic tests”. As a result, for any samples received on a WGLS referral form, consent for the testing requested is assumed and that the responsibility of obtaining consent lies with the referring clinician. (This, however, does not preclude the laboratory from contacting the referring clinician, even if consent is evident, if there is a question regarding the appropriateness of the requested test). At WGLS we understand the importance of obtaining consent for genomic testing and the consequences of proceeding with genetic analysis in its absence. Any issues relating to consent are picked up at the sample investigation review stage.

Service Charges

Each request accepted by the laboratory for examination(s) shall be considered an agreement with the sender. Referrals between NHS England according to the National Test Directory will not be subject to direct payment. Services provided outside of the National Test Directory and services provided to

requestors outside of NHS England will be subject to charge and invoiced on completion of work. Details of test pricing is available on request and service level agreements should be requested.

Information Governance

All staff working for the Pathology have a legal duty to keep information about patients and staff members confidential and to protect the privacy of individuals. All staff adhere to the Trust's Data Protection and Confidentiality Policy and are mandatorily required to perform annual Information Governance training.

User Feedback

We welcome user feedback and appraisal of our service by emailing shc-tr.WRGLdutyscientist@nhs.net or WGLS_cancergenomics@uhs.nhs.uk and the service has a policy for seeking user feedback by survey.

Dealing with Complaints

WGLS adheres to the Trust Policy for handling concerns and complaints. All complaints, either raised via Patient Support Services or directly to a member of staff from within the department will be thoroughly investigated and actioned to resolve any identified issues.

Availability of clinical advice

Clinical Scientists are available during routine working hours to provide help with the interpretation of results and other clinical advice.

Completion of the request form

The appropriate request form should be downloaded from this site and properly completed. A request form must accompany all specimens sent to the laboratory and should clearly state the following information:

- Surname and forename
- Hospital /NHS Number
- Date of birth
- Sex
- Ward/Clinic and Consultant code
- Type of specimen
- Date and time of collection
- Investigations required including National Genomic Test Directory Code

- Relevant clinical information with evidence for clinical utility where appropriate
- Identification of priority status with reasons for urgency based on clinical need

Specimen Collection

Samples should be collected into appropriate tubes and sent to the laboratory. Please allow tubes to fill to capacity.

Pathology Receptions at Salisbury and Southampton Hospitals are open and able to receive samples 24 hours a day, 7 days a week.

Samples should be clearly labelled with at least three points of patient identification. A request form that provides patient information as listed above should accompany samples.

Special advice on sample collection

Specimen rejection

Specimens will be rejected if they are unsuitable for the investigations requested or if the identity of the patient is in doubt.

High risk specimens and safety

All specimens must be collected into leak resistant containers. The container must be appropriate for the purpose, properly closed and not contaminated on the outside.

All specimens are regarded as high risk, but if they are taken from a patient who is known to be infected with a blood-borne agent such as Hepatitis B virus and HIV, another serious infectious disease such as tuberculosis or typhoid, or from those at risk of being infected by one of these agents, then extra care should be taken to highlight this. These specimens should be labelled as HIGH RISK on the request form.

Specimen transport

All sample containers from a single request are to be sealed into a clear plastic specimen bag by the person taking the sample. Specimen request forms/support documents must not be placed in the same compartment as the sample.

UHS specimen transport arrangements:
Samples are collected from wards on a frequent basis by the portering service.

UHS GP Practice specimen transport and collection arrangements:
Samples are collected from surgeries and clinics on a daily basis. For details of frequency and times please contact:

Transport Department
140 Mauretania Road
Nursling Industrial Estate

Southampton
SO16 6YS
Tel: 023 80748027

Postal/Courier Referrals from Other Laboratories:
All referrals if sent by road must be sent in accordance with UN 3373 Biological Substance Category B Packing instruction P650. Please send all referral samples using the postal/courier service of your choice.

Results Reporting

Validated results are reported electronically to UHS results servers eQuest and ICE.

Hard copy reports for valid locations are printed and dispatched every working day either by post or email.

Quality Assurance

We are a ISO15189 accredited medical laboratory service committed to providing users with a service of the highest quality to meet clinical need. We operate a comprehensive quality management system and aim to produce:

- Accurate results
- Using appropriate testing strategies
- In an appropriate timeframe
- With appropriate comment and interpretation to assist clinicians in providing the best management of their patients.

Our tests are all fully validated and/or verified internally (as appropriate) to include sensitivity, specificity, measurement uncertainty (where applicable), internal quality control and test limitations/interferences. Test limitations and sensitivity are stated on our reports, where appropriate. Information relating to any of the above validation parameters is available on request.

As part of our ongoing commitment to quality standards, we participate in all relevant external quality assessment schemes provided by the following EQA bodies: GenQA (formerly UK NEQAS for Molecular Genetics and CEQAS); Leucocyte Immunophenotyping; Blood Coagulation; Histocompatibility and Immunogenetics; European Molecular genetics Quality Network (EMQN), European Research Initiative CLL (ERIC) and EuroClonality for all of which we typically achieve excellent results. Please contact us for further details if required.

We aim to follow all national best practice guidelines and endeavour to meet NHSE recommended turnaround times. Please consult the National Turn Around Targets to find the reporting times you can expect for your referrals.

Quality management, accreditation and external quality assessment

Wessex Genomics Laboratory Service (Salisbury)

UKAS reference number: 9055

The majority of the tests offered by the laboratory are accredited to ISO15189:2022,

Tests currently provided outside the UKAS schedule of accreditation:

- SNP array (pending Extension to Scope)
- Whole Genome Sequencing (pending Extension to Scope)
- *FLT3*-TKD hot spot by fragment analysis (pending Extension to Scope)
- Pan-Haematological NGS panel (pending Extension to Scope)
- NGS assays on DNA extracted from formalin-fixed paraffin-embedded (FFPE) material (pending Extension to Scope)
- Monitoring of *FIP1L1::PDGFRA* fusion and other rarer gene fusions associated with eosinophilic MPNs by nested RT-PCR or multiplex genomic DNA analysis (pending Extension to Scope)

Wessex Genomics Laboratory Service (Southampton)

UKAS reference number: 9194

The majority of the tests offered by the laboratory are accredited to ISO15189:2022,

Tests currently provided outside the UKAS schedule of accreditation:

- Actionable Solid Organ Panel (pending extension to scope)

The full UKAS ISO15189 schedules of accreditation are detailed on the UKAS website https://www.ukas.com/find-an-organisation/

Laboratory Departments

Oncology Genetics (Salisbury and Southampton Sites)

We offer a comprehensive service for the diagnosis and monitoring of a wide range of haematological malignancies, solid tumours and an expanding number of hereditary and somatic mutation cancers using conventional cytogenetics, FISH and molecular techniques as appropriate.

For details, please use the appropriate link:

- Sample requirements
- Sample prioritisation and reporting times
- Full list of tests according to disease subtype

Contact:

Laura Chiecchio (Salisbury)
l.chiecchio@nhs.net

Nicola Meakin (Southampton)
nicola.meakin@uhs.nhs.uk

Pharmacogenomics

A range of pharmacogenomic tests are offered by the service including DPYD genotyping.

Contact:

Nicola Meakin (Southampton)
nicola.meakin@uhs.nhs.uk

Rare and Inherited Disease Genetics (Salisbury)

For a full list of tests conducted by WGLS at Salisbury, see our Rare Disease service list.

Samples referred for tests not undertaken at our laboratory may be sent to other accredited centres either within or outside the Central and South Genomics Laboratory Hub. We are also happy to accept private and overseas referrals. Please contact Duty Scientist for details and prices.

Pregnancy Loss and Solid Tissue Service (Salisbury)

Testing is available for referrals that meet the laboratory's acceptance criteria, with a tiered testing approach dependent upon the referral details and patient's obstetric history.

Referrals are accepted for:

- Pregnancy loss or termination with significant fetal malformations (irrespective of gestation).
- Pregnancy loss >24 weeks.

Also, in line with the published guidelines of the Royal College of Obstetricians and Gynaecologists (RCOG):

- Miscarriages (<24 weeks) for 3rd and subsequent miscarriages.

In compliance with RCOG guidelines the laboratory does not routinely accept referrals for parental karyotyping for couples experiencing recurrent miscarriages.

Full details of our referral acceptance policy and the available tests are summarised in our solid tissue service guide.

Molecular genetics (Salisbury)

A wide range of rare disease molecular genetic tests is conducted within our GLH, including next-generation sequencing panels, single gene screens, targeted testing for known or common pathogenic variants, analysis of triplet repeat expansions, methylation studies for imprinting disorders and X-inactivation studies. Please note that from 1st July 2021, testing for certain clinical indications' will be carried out by whole-genome sequencing (WGS).

Referrals for carrier testing or pre-symptomatic testing for late-onset genetic disorders will only be accepted from a Clinical Geneticist.

Cytogenetics (Salisbury)

Constitutive cytogenetic testing investigates the whole genome for loss or gain of chromosomal material and structural rearrangements involving chromosomes in neonatal, paediatric, adult and perinatal cases. A range of tests is conducted at WGLS:

- **Microarray**
  Genome-wide chromosomal microarray (CMA) testing (refer to our User guide) detects copy number variants (CNVs). It is a high-resolution test used for patients with, dysmorphism or certain congenital abnormalities, and for fetal losses with specified clinical indications.

- **Karyotyping**
  Conventional G-banded karyotype analysis is provided for certain referral indications e.g. where a balanced chromosome rearrangement, sex chromosome imbalance, mosaicism, or common trisomy is suspected. It is also commonly used as a reflex test for characterisation of chromosome abnormalities detected by other techniques and for follow-up studies to establish recurrence risks.

- **Fluorescent in situ hybridization (FISH)**
  FISH testing can detect a gain, loss or rearrangement of a specific region of interest. It is a targeted reflex test for the characterisation of chromosome abnormalities detected by other techniques and for follow-up studies to establish inheritance.

- **Quantitative fluorescent PCR (QF-PCR)**
  This test is primarily used for the rapid diagnosis of common chromosome aneuploidy syndromes in fetal losses, neonates and paediatric cases, or to determine the genetic sex of a patient.

Rare Disease Contacts:

simon.thomas1@nhs.net (Molecular Genetics)

caroline.price4@nhs.net (Cytogenetics)

Referral Forms

Rare and Inherited Disease referral form

Rare and Inherited Disease referral form

RNA analysis referral form

BRCA Mainstreaming referral form

Oncology Genetics (Salisbury)

Oncology referral form

Oncology Genetics (Southampton)

MPF9 Solid tumour request form

MPF12 HaemOnc request form

Pregnancy and Solid Tissues

Solid Tissues referral form

SPIRE Referrals

SPIRE referral form

Other Documents:

WRGL Website Oncology Guide on Sample Requirements

WRGL Website Oncology Guide on Sample Prioritisation

WRGL Website Oncology Tests Performed According to Disease Entity

WRGL Website Solid Tissue Service Guide

Clinicians Guide to the Genomic Medicine Service Requesting Genomic tests using the National Genomics Test Directory and PanelApp for Rare Disease

Rare Disease service list

WRGL Website Microarray User Guide