

Low Grade Glioma in Children (LOGGIC) Core BioClinical Data Bank

Submission date 08/09/2026	Recruitment status Recruiting	☐ Prospectively registered ☐ Protocol
Registration date 06/10/2026	Overall study status Ongoing	☐ Statistical analysis plan ☐ Results
Last Edited 06/10/2026	Condition category Cancer	☐ Individual participant data ☒ Record updated in last year

Plain English summary of protocol

Background and study aims

In this study, researchers are trying to learn more about the specific changes in genetic information and what is driving the change in low grade gliomas (LGGs).

The LOGGIC Core BioClinical Data Bank (LOGGIC Core) is a collection of information on the genetic changes in LGG tumours, designed to improve our understanding of LGGs in children. Using this information, we want to help develop new treatment strategies for future patients. We want to personalise tumour treatment based on their genetic information, such as whether a tumour has a certain change and therefore could respond well or poorly to a particular treatment. Further to this, the study hopes to identify tests (known as biomarkers) that predict LGG disease progression, and the best treatment option for this.

Who can participate?

Children and young adults aged 0-21 years with low grade glioma. A doctor will check if someone is eligible to take part.

What does the study involve?

If you join the study, DNA will be extracted from samples of your tumour tissue and blood to look for changes in your DNA. All samples will usually be taken at the same time as routine procedures. The results will be stored as part of a DataBank for researchers to use to study LGGs.

What are the possible benefits and risks of participating?

The main benefit is to help in the development of new treatments for LGG in the future. The risks are small as all samples will be taken at the same time as routine procedures, therefore participation in the study does not create additional risks.

Where is the study run from?

University of Birmingham (UK)

When is the study starting and how long is it expected to run for?

October 2026 to October 2031

Who is funding the study?
Cancer Research UK

Who is the main contact?
LOGGICCore@trials.bham.ac.uk

Contact information

Type(s)

Principal investigator

Contact name

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WC1N 3JH

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Type(s)

Public, Scientific

Contact name

None Study Team

Contact details

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United Kingdom
B15 2TT

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Additional identifiers

Integrated Research Application System (IRAS)
358899

Central Portfolio Management System (CPMS)
73697

Grant Code

CRCPJT\100015

Study information

Scientific Title

Low Grade Glioma in Children (LOGGIC) Core BioClinical Data Bank

Acronym

LOGGIC Core

Study objectives

1. Establishment of logistics for tissue sample submission, analysis of genetic changes in tumours, identification of genetic changes in tumours which could be targeted by particular treatments, and establishment of a clinical and genetic data bank for children and young people with low grade glioma (LGG).
2. To collect information about genetic changes in the tumours of patients with LGG at diagnosis and optionally at relapse. This information will then be used to analyse biomarkers (indicators of what is happening in the tumour) and clinical outcome, and will also be provided to other studies in the LOGGIC series (where patients consent to participate in these related studies).
3. To collect baseline histological and clinical follow-up data.
4. To explore improvement of diagnostic accuracy for all LGG patients involved in the study by adding genetic information to reference histological and radiological evaluation, and to investigate the existence of possible new, genetically-defined subtypes of LGG.
5. To describe clinically relevant target patterns and frequencies in children and young people with LGG, including identification of new therapeutic targets.
6. To identify biomarkers to predict treatment response and natural course of disease, by linking histopathological and genetic data with radiological and clinical follow-up data. This includes, but is not limited to, RNA-seq expression signature analysis (identifying groups of genes with correlated expression patterns) for particular phenotypes (characteristics), identified through RNA and/or single cell sequencing of fresh frozen tumour tissue, as well as other high-throughput methods (automatic systems to rapidly conduct different scientific tests) using frozen tissue for therapeutic target discovery and validation.
7. To explore feasibility of liquid biopsy analysis (using liquid samples to test for signs of tumours) on different sources including blood and cerebrospinal fluid (CSF) collected during routine procedures as potential biomarkers for diagnosis and response to treatment, as well as other exploratory biological studies.
8. To set a drug testing and model using viable tumour tissue.
9. To establish a LOGGIC biobank and use the Hannover Unified Biobank in Germany to store extracted DNA and RNA from remaining tissue after all other objectives have been addressed.

Ethics approval required

Ethics approval required

Ethics approval(s)

Approved 08/07/2026, South Central - Berkshire Research Ethics Committee (Health Research Authority, 2 Redman Place, Stratford, London, E20 1JQ, United Kingdom; -; berkshire.rec@hra.nhs.uk), ref: 26/SC/0124

Primary study design

Observational

Secondary study design

Longitudinal study

Study type(s)

Health condition(s) or problem(s) studied

Low-grade glioma

Interventions

Where a patient has been diagnosed with low grade glioma (LGG) and the treating doctor feels they are eligible for the study, the doctor will discuss the study with them, including whether their care may need to transfer to a different doctor or hospital if the study is not offered at their current hospital or if the treating doctor is not an investigator for the study. The patient and/or parent/guardian will be provided with an age-appropriate information sheet and given time to consider whether they would like to participate in the study. Patients and/or parents /guardians will be given as much time as possible to consider the study, in all cases at least 24 hours. The patient and/or parent/guardian will then be given the opportunity to discuss the study further and have any questions answered. If the patient and/or parent/guardian agrees to take part in the study, informed consent will then be obtained by a suitably qualified member of the research team, who has been delegated this task, via completion of an informed consent form.

Following consent, baseline data will be collected and entered into the study database. Fresh frozen and paraffin embedded tumour samples which were collected during a previous surgery or biopsy will be sent to Great Ormond Street Hospital (GOSH.) A blood sample will also be collected and sent to GOSH; however, this will only be collected at the same time as routine blood collection. If a patient has previously had molecular profiling performed on tumour samples as part of their standard care, results from this testing will be sent to GOSH by the local genomic laboratory hub who previously analyses samples, for use in the study to avoid duplication of tests which have already been performed.

GOSH will perform first level molecular diagnostics, which involves performing genetic analyses on the paraffin embedded tumour samples. As part of their analyses, GOSH will also centrally confirm the local hospital's diagnosis of LGG. Following this, GOSH will send the samples to the second level molecular diagnostics facility in Heidelberg, Germany. Here, further genetic analyses will be performed on the blood and tumour samples. Results from these tests will be returned to the treating doctor, who will have responsibility for deciding on treatment options for the patient, which may include further surgery, chemotherapy, radiotherapy or another clinical trial, which may offer a treatment targeting the genetic alterations found in the patient's tumour.

Where cerebrospinal fluid (CSF) is collected as part of routine treatments, any excess CSF which is not needed for routine diagnostics will be sent to GOSH, who will then send samples to Heidelberg for analysis, including genetic analysis. This aspect of the study is optional, and patients can participate in the rest of the study without consenting to analysis of CSF samples.

Follow-up data will be collected for up to 5 years, which will include information about any treatments the patient receives, information about their tumour and survival data. This will be used to analyse clinical outcomes. The research team at the hospital site will enter this data onto the study database as/when required.

If the patient experiences any relapse or progression of their tumour whilst participating in the study, tumour samples from any routine surgery or biopsy, as well as an additional blood sample

collected at the same time as routine blood collection, will undergo first and second level molecular diagnostics, as described above.

If any genetic alterations are identified which are also present in the patient's blood sample (i.e., in all of their body's cells), and the patient's treating doctor feels these are significant and may have implications for the patient and their family, the treating doctor may refer the patient and/or their parent/guardian to the NHS clinical genetics service to discuss further.

The study is open in several countries across Europe and will recruit thousands of LGG cases, which will help to understand more about molecular subgroups of LGG and associated clinical outcomes. The data generated in the study will be analysed by the international study management team at Hopp Children's Cancer Center Heidelberg (KiTZ), German Cancer Research Center (DKFZ), Germany and Westfälische Wilhelms-Universität Muenster (WWU), Muenster, Germany.

Intervention Type

Other

Primary outcome(s)

Molecular characterisation of paediatric low-grade glioma using prognostic and predictive molecular biomarkers at diagnosis and/or relapse

Key secondary outcome(s)

Completion date

31/10/2031

Eligibility

Key inclusion criteria

1. Age <21 years
2. At primary diagnosis: histologically verified low-grade glioma/glioneuronal tumour WHO grade I or II; fresh frozen and paraffin tumour material together with blood available for molecular diagnostics; exceptions (i.e., MRI-based diagnosis) can be accepted only where a biopsy would pose an unacceptable risk to damage of eloquent brain structures
3. At relapse/progression: fresh frozen and paraffin tumour material together with blood available for molecular diagnostics from primary diagnosis and/or current episode (preferably) of relapse/progression; no exceptions for the submission of fresh frozen and paraffin tumour material with blood
4. Before patient registration, written informed consent, including data and tumour material transfer, must be given according to ICH/GCP and national/local regulations
5. Residency in one of the participating countries of LOGGIC Core

Healthy volunteers allowed

No

Age group

Mixed

Lower age limit

0 Years

Upper age limit

21 Years

Sex

All

Total final enrolment

0

Key exclusion criteria

Does not meet the inclusion criteria

Date of first enrolment

01/10/2026

Date of final enrolment

30/09/2031

Locations**Countries of recruitment**

United Kingdom

England

Northern Ireland

Scotland

Study participating centre

Alder Hey Children's Hospital

Eaton Road

West Derby

Liverpool

England

L12 2AP

Study participating centre

Birmingham Childrens Hospital

Steelhouse Lane

Birmingham

England

B4 6NH

Study participating centre
Bristol Royal Hospital for Children
Upper Maudlin Street
Bristol
England
BS2 8BJ

Study participating centre
The Christie
550 Wilmslow Road
Withington
Manchester
England
M20 4BX

Study participating centre
Royal Victoria Infirmary
Queen Victoria Road
Newcastle upon Tyne
England
NE1 4LP

Study participating centre
Great Ormond Street Hospital for Children
Great Ormond Street
London
England
WC1N 3JH

Study participating centre
John Radcliffe Hospital
Headley Way
Headington
Oxford
England
OX3 9DU

Study participating centre
Leeds General Infirmary
Great George Street
Leeds

England
LS1 3EX

Study participating centre
Noahs Ark Childrens Hospital for Wales
Cardiff & Vale University Health Bd
Heath Park
Cardiff
Wales
CF14 4XW

Study participating centre
Queens Medical Centre
Nottingham University Hospital
Derby Road
Nottingham
England
NG7 2UH

Study participating centre
The Royal Belfast Hospital for Sick Children
274 Grosvenor Road
Belfast
Northern Ireland
BT12 6BA

Study participating centre
Royal Hospital for Children and Young People
50 Little France Crescent
Edinburgh
Lothian
Scotland
EH16 4TJ

Study participating centre
Royal Manchester Children's Hospital
Oxford Road
Manchester
England
M13 9WL

Study participating centre
Royal Marsden Hospital
Downs Road
Sutton
England
SM2 5PT

Study participating centre
Sheffield Childrens Hospital
Western Bank
Sheffield
England
S10 2TH

Study participating centre
Southampton General Hospital
Southampton General Hospital
Tremona Road
Southampton
England
SO16 6YD

Sponsor information

Organisation
University of Birmingham

ROR
<https://ror.org/03angcq70>

Funder(s)

Funder type
Charity

Funder Name
Cancer Research UK

Alternative Name(s)

CR_UK, Cancer Research UK - London, Cancer Research UK (CRUK), CRUK

Funding Body Type

Private sector organisation

Funding Body Subtype

Other non-profit organizations

Location

United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study will be available upon request. Access to the data is controlled through requests to the 'Data and Sample Access Advisory Board' for the study. Requests can be submitted initially to the Study Mailbox, where they will be referred to the study advisory board.

IPD sharing plan summary

Available on request