Introduction to LabKey

A Genomics England Quick Guide

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Document History

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1.1 Version History

Version	Date	Author	Description
V0.1	12/05/2016	PG	Draft Version
V0.2	13/05/2016	PG	RS & KF updates
V0.3	28/07/16	CM	Updated to reflect views NHS GMC will have in August
V0.4, 0.5	28/07/16	PG	Minor style amends
0.6	30/09/2016	PG	Addition of 'draft' watermark
0.7	24/10/2016	PG	Added reference to Sample Tracking and burst views.
0.8	03/01/2017	PG	Enhanced 'clincial views' section to reflect latest LabKey release
0.9	04/01/2017	RS	Minor updates to reflect future updates to 'clinical views'
1.0	10/01/17	CB	Addition of contents table, feedback note

1.2 Reviewers

This document must be reviewed by the following:

Name	Area
Nathan Hicks	Application Development
Gavin Mulcahy	Testing

1.3 Approvers

This document must be approved by the following:

Name	Responsibility	Date	Version
Peter Counter	CIO	10/01/17	1.0
Tom Fowler	Caldicott Guardian	25/05/16	0.2
Grant Stapleton	SIRO	25/05/16	0.2

Contents

2 Introduction

This guide is intended to give NHS GMC technical users (e.g. data managers) a first view of the information available on LabKey. The initial functionality focuses on data validation.

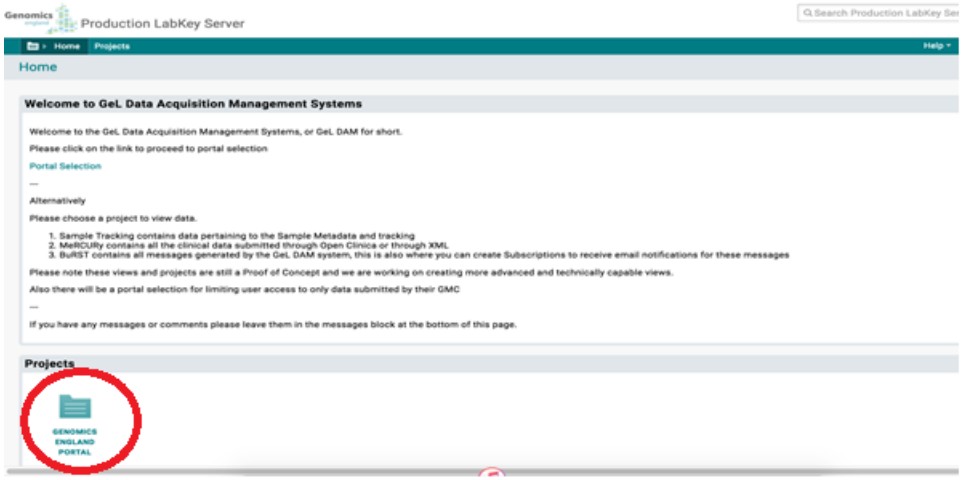
The views available and described in this guide are:

- Genomics England Portal View
    - This provides a view of the current state of all data items for individual participant records in an easy read format.
- Mercury view
    - This is a searchable table showing a record of all submissions and updates for participants in your NHS GMC. You will see one row for every update. This view is split by:
        - Rare Disease
        - Cancer
- Sample Tracking view (coming soon)
    - This provides a 'normalised' view of only the most up-to-date, successful submissions to Mercury for any given participant or sample
    - A guide to this view will be made available when this view is released to GMCs
- Burst View (coming soon)
    - This shows a table with all the burst messages generated, enabling you to sort and filter through your messages to find the ones relevant to you.
    - A guide to this view will be made available when this view is released to GMCs

3 Getting started

3.1 Log in

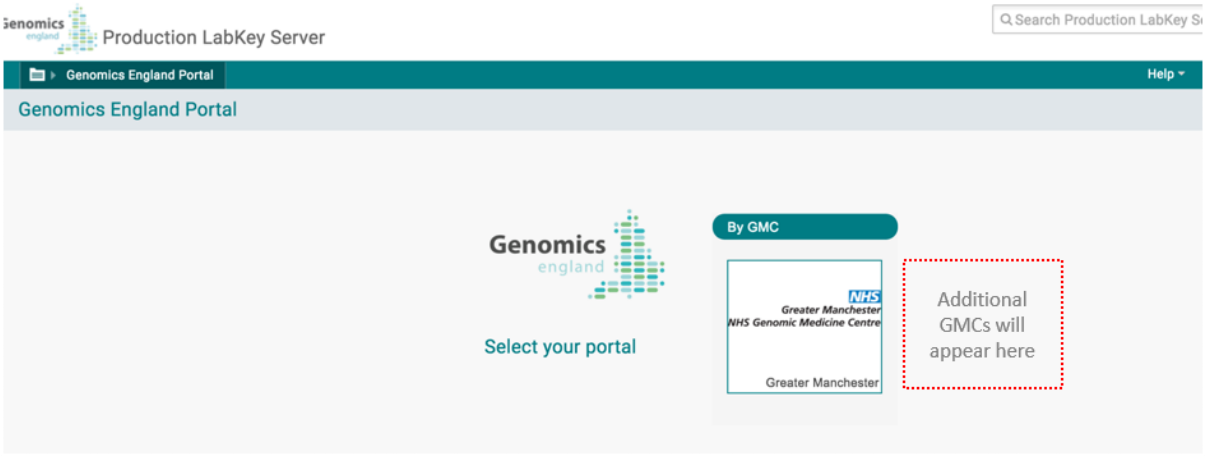
3.2 Click on the folder icon



This will take you to the portal links for any NHS GMC you have permission to access.

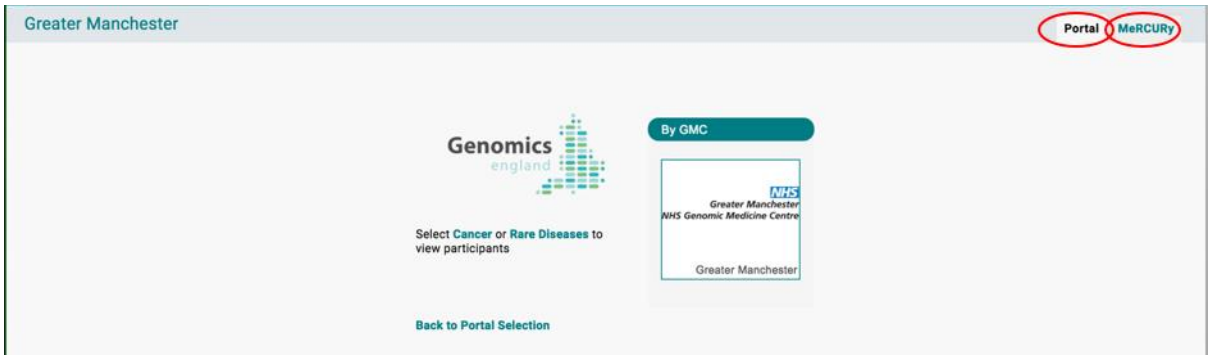
3.3 Select the NHS GMC you wish to review

Most users will only have one option at this point, but if you have permissions to view data for more than one NHS GMC, you will see one box for each of the NHS GMCs.



3.4 Choose whether you want to see the Portal View or Mercury view.

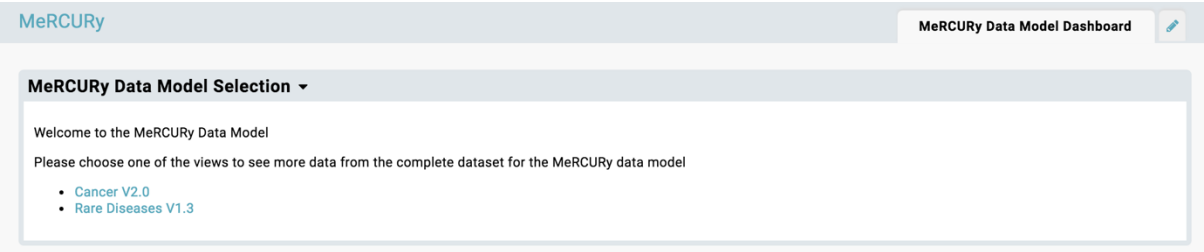
You can now select the Portal or Mercury Views via the tab in the top right. Portal views are better for seeing the current status of all the data items for individual participants. Mercury views are generally more useful for seeing all events and submissions for participants and for aggregating data.



4 Mercury view

4.1 Introduction to Mercury View

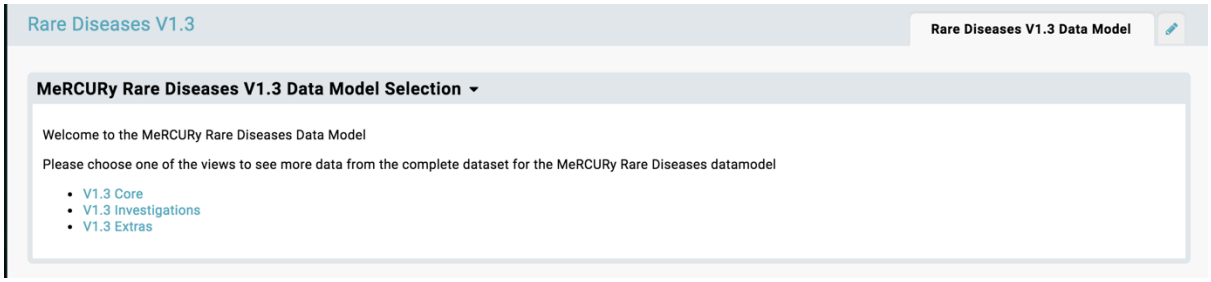
When you've selected the Mercury view, you will be asked to choose between Cancer data and Rare Disease data by clicking on the links in blue.



Once you select Cancer or Rare Disease you are offered and option of

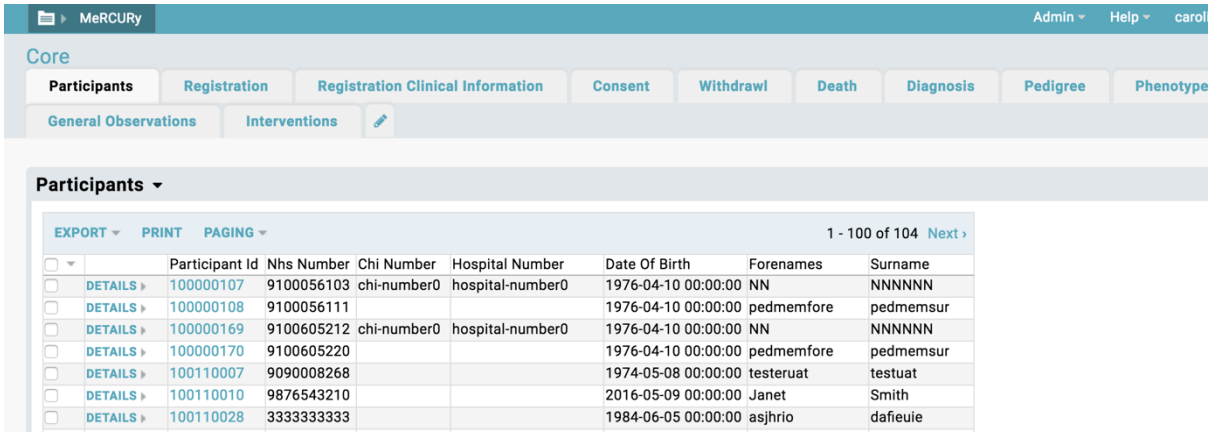
- Core
- Investigations
- Extras

At the current time there is no information available to NHS GMC's via Investigations or Extras options. These views are being developed and will be populated in the coming months.



By selecting Core you will be taken to a searchable database view of all your participants recruited under the relevant programme.

There are separate tabs for different information categories, generally corresponding to the CRFs in OpenClinica.



		Participant Id	Nhs Number	Chi Number	Hospital Number	Date Of Birth	Forenames	Surname
☐	DETAILS	100000107	9100056103	chi-number0	hospital-number0	1976-04-10 00:00:00	NN	NNNNNN
☐	DETAILS	100000108	9100056111			1976-04-10 00:00:00	pedmemfore	pedmemsur
☐	DETAILS	100000169	9100605212	chi-number0	hospital-number0	1976-04-10 00:00:00	NN	NNNNNN
☐	DETAILS	100000170	9100605220			1976-04-10 00:00:00	pedmemfore	pedmemsur
☐	DETAILS	100110007	9090008268			1974-05-08 00:00:00	testeruat	testuat
☐	DETAILS	100110010	9876543210			2016-05-09 00:00:00	Janet	Smith
☐	DETAILS	100110028	3333333333			1984-06-05 00:00:00	asjhrio	dafieuie

By selecting the various tabs you can see different views of data for all your participants. Where there have been multiple submissions of any CRF, each submission will be shown on its own row.

This means you may need to perform deduplication if you are using this data for management information.

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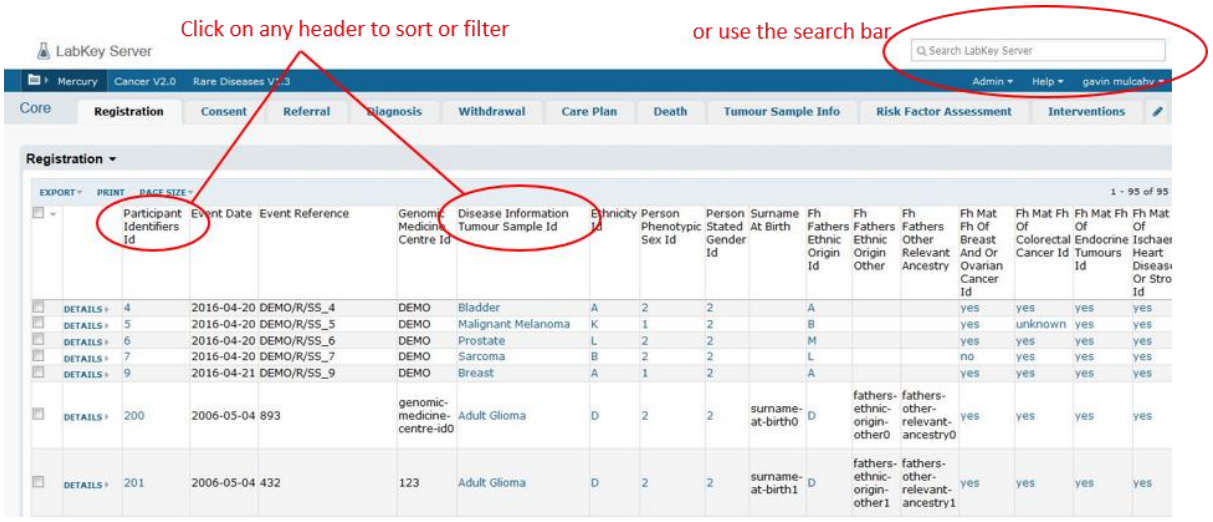
4.2 How to find participants or other data

On this screen you can sort and filter any column by clicking on the column header.

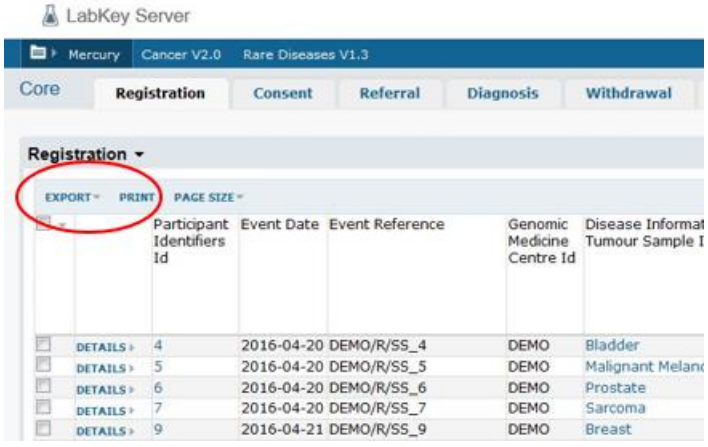
You can also use the search bar in the top right of the screen to find the information you need.



The Mercury view shows every update to a participant's details.

4.3 Exporting data

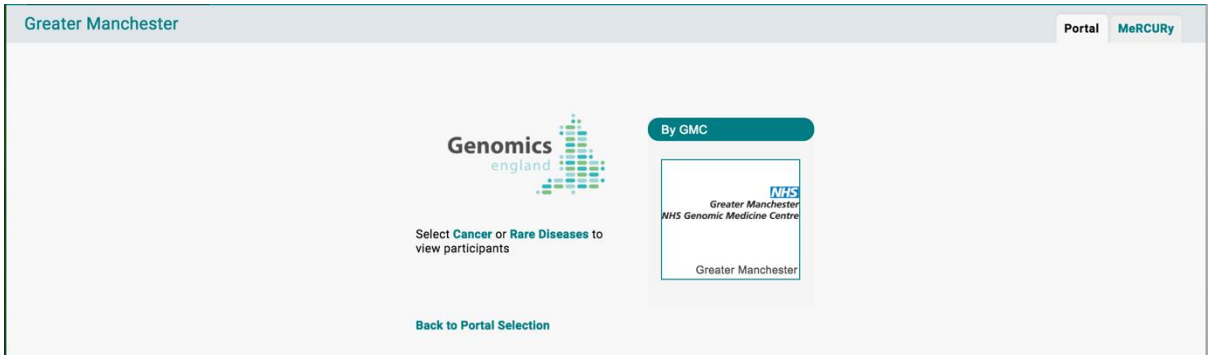
It's possible to export the data in any given view using the export button on the top left. This will export in Excel format to your local machine.



5 NHS GMC Portal Views

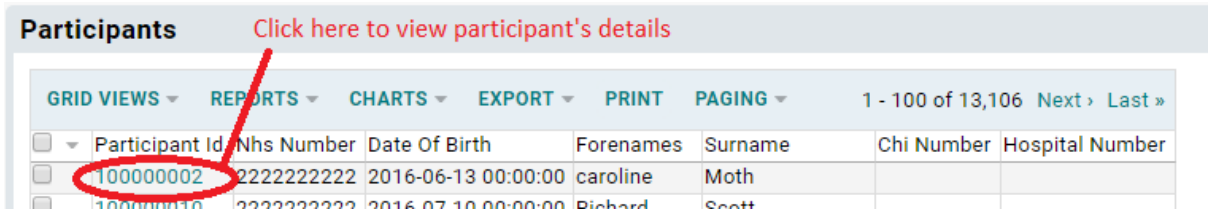
5.1 Introduction

Using the Portal Views allows you a view of the whole participant's record in a Clinical View. To get started, choose the Portal tab in the top right corner and select one of Cancer or Rare Disease.



5.2 Choose a participant

You will initially be presented with a list of all the participants for the NHS GMC you are looking at. To view the full, current dataset for any participant, simply click on the appropriate row in the table.



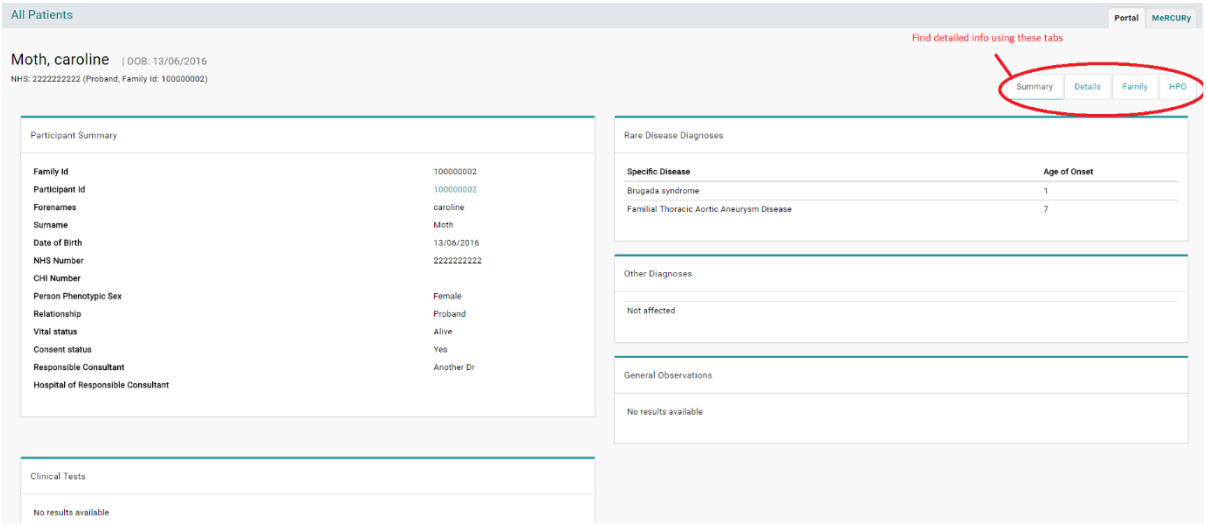
5.3 Summary and detailed views

These views present the data that has been previously submitted by the NHS GMC as well as, in the case of Rare Diseases, information about the medical review and gene panels assigned for the participant.

You will first be presented with a summary view for the participant, which will differ between Rare Disease and Cancer participants.

You can either select the various tabs available for all the data for that participant, or you can simply click through the summary data item you are interested in and you will be automatically taken to the appropriate tab in the top right hand corner.

Please not that these views will be under ongoing development and are likely to change over time.

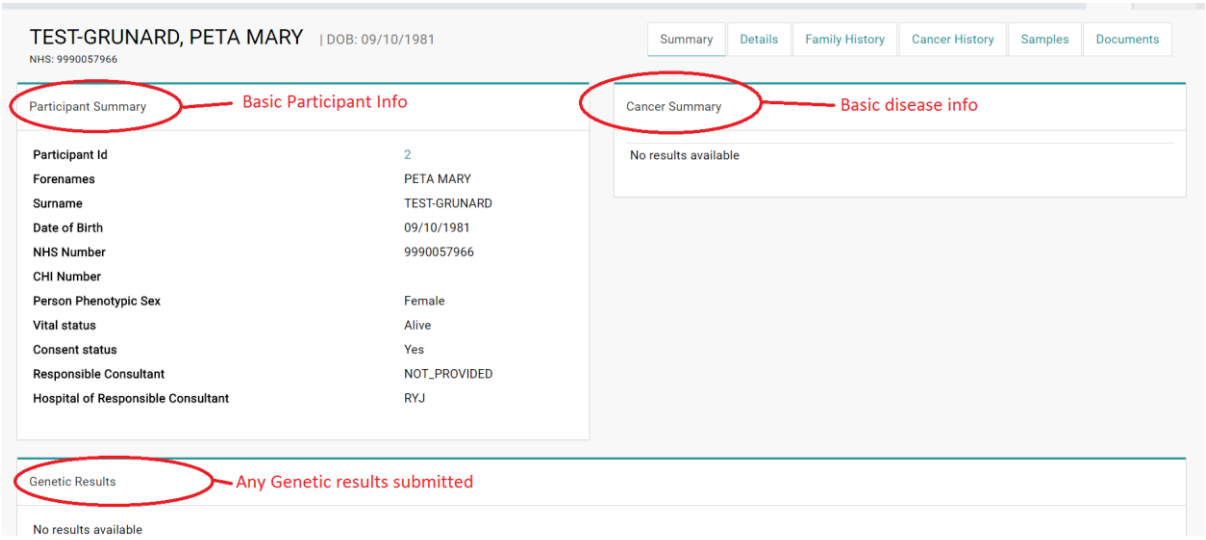


5.3.1 Cancer views

The views for Cancer participants are Summary, Details, Family History, Cancer History, Samples and Documents.

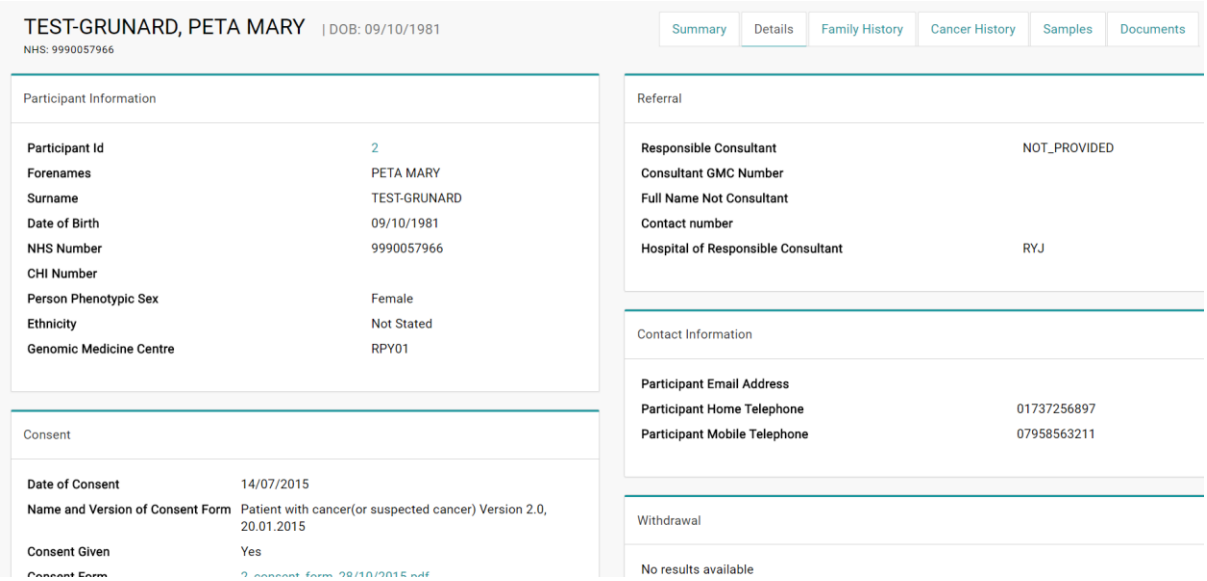
5.3.1.1 Summary

Displays basic participant information, some disease information and a summary of any genetic results submitted by the NHS GMC.



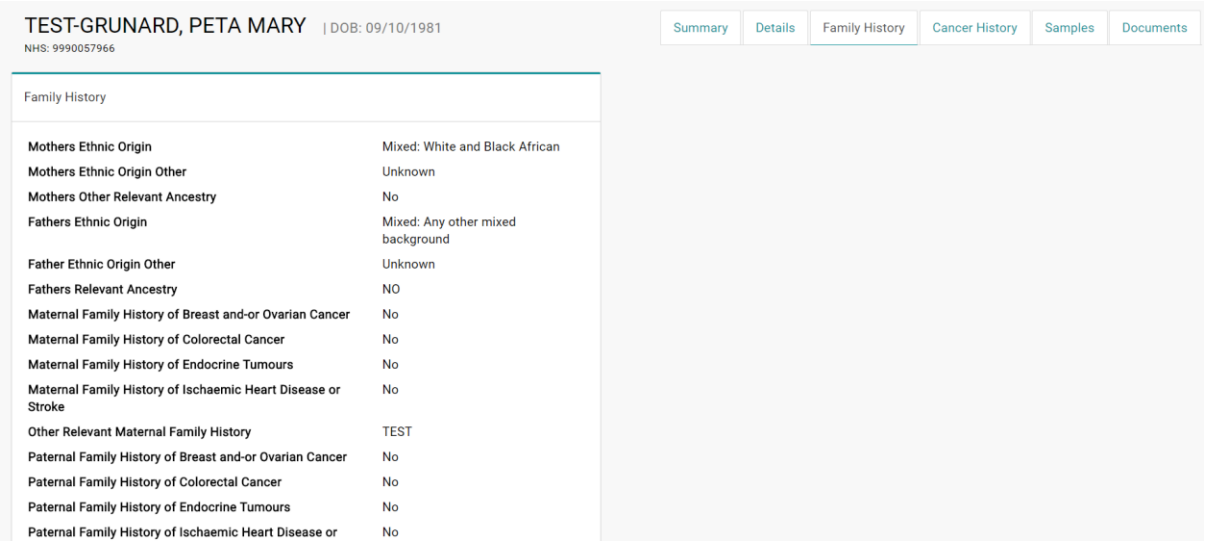
5.3.1.2 Details

Displays a complete record of participant details, including identifying information, consultant and referral data, contact information, and consent and withdrawal information.



5.3.1.3 Family History

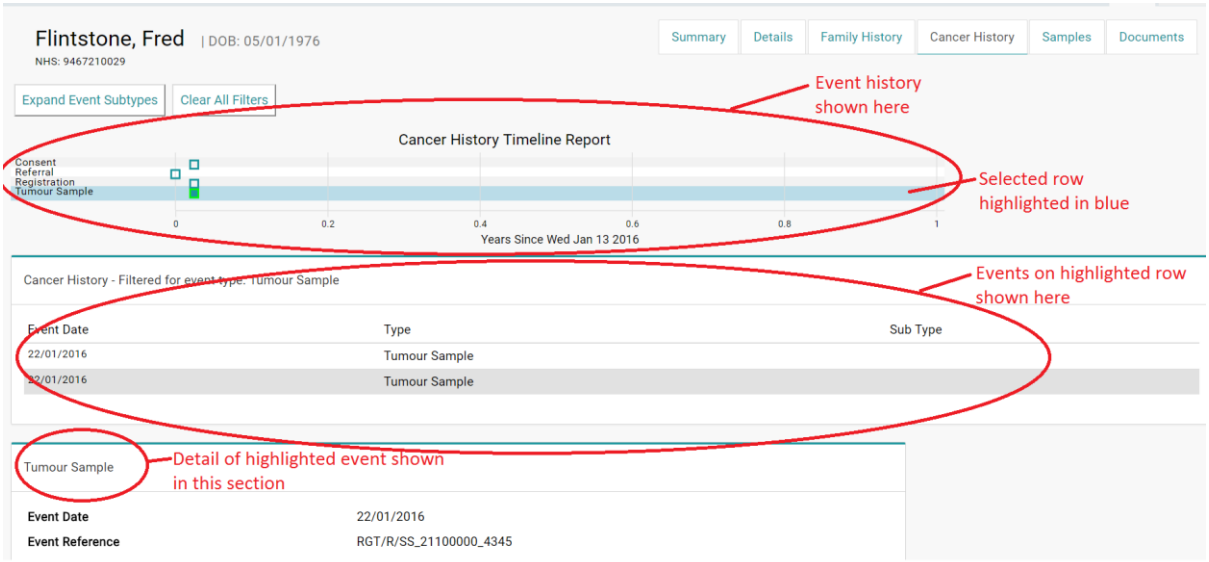
The Family History tab includes details that have been submitted regarding the ethnic origin and any history of disease that has been provided by the NHS GMC.



5.3.1.4 Cancer History

The Cancer History tab presents a visualisation of the cancer events such as diagnosis, referral and treatments that have been submitted by the NHS GMC.

This tab allows users to view a summary of the cancer timeline, as well as clicking on given events to view more detail, presented below the timeline report.

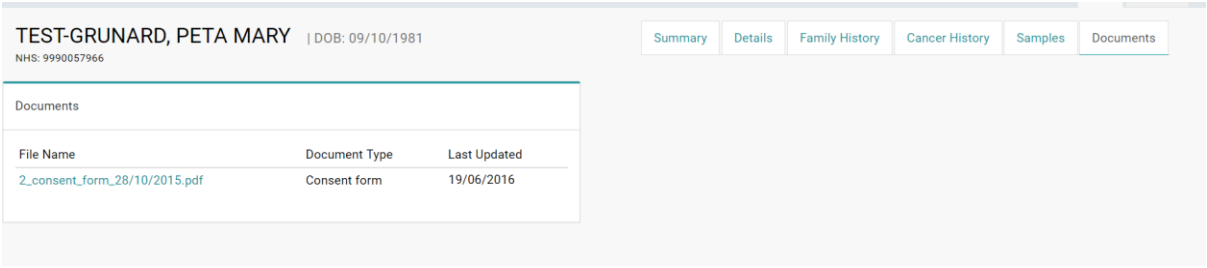


5.3.1.5 Samples

The Samples tab is intended to present a view of the current state of samples that have been submitted to Genomics England. At this time, this view remains under development.

5.3.1.6 Documents

Any documents which have been submitted for this participant will be presented here as links.



5.3.2 Rare Disease views

The views for Rare Disease participants are Summary, Details, Genetic Tests, Observations, Family and HPO.

5.3.2.1 Summary

Information provided in the Summary tab includes basic Participant information such as identifying information, name of the responsible consultant, consent status, Rare Disease and other diagnoses, General Observations where these have been provided by the NHS

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GMC, details of other family members recruited (with hyperlinks to their data) and details of HPO terms entered as present or absent and, if available, information about the family's pre-interpretation 'medical review'.

From late January 2017, this view will also contain an image of the current pedigree for the family. Once released for NHS GMC use, the Pedigree Editor will be accessible through a link here to allow pedigrees to be created and edited.

Mouse, Micky | DOB: 12/07/2016

NHS: 2222222222 (Proband, Family Id: 656564)

Family Medical Review: No state assigned
Participant Medical Review: Awaiting medical review

Summary | Details | Genetic Tests | Observations | Family | HPO

Participant Summary

Family Id	656564
Participant Id	100110033
Forenames	Micky
Surname	Mouse
Date of Birth	12/07/2016
NHS Number	2222222222
CHI Number	
Person Phenotypic Sex	Female
Relationship	Proband
Disease Status	Familial cerebral small vessel disease
Vital status	Dead
Consanguinity	U
Consent status	Yes
Responsible Consultant	me

Rare Disease Diagnoses

Specific Disease	Age of Onset
Familial cerebral small vessel disease	5

Other Diagnoses

Not affected

General Observations

Measurement	Value	Type	Date
Head Circumference	50.00 cm	Measured	08/08/2016

Family
Medical Review: No state assigned

Participant Id	Name	DOB	Relationship	Disease Status	Participant Medical Review
100110033	Micky Mouse	12/07/2016	Proband	Familial cerebral small vessel disease	Awaiting medical review

Phenotype Statement

HPO Term	Present	Modifiers
Migraine with aura	Yes	Right, Middle Age Onset, Non-Progressive, Moderate, Distal
Unilateral deafness	Yes	
Reduced consciousness/confusion	Yes	
Anxiety	Yes	
Diabetes mellitus	Yes	

Medical Review - Participant

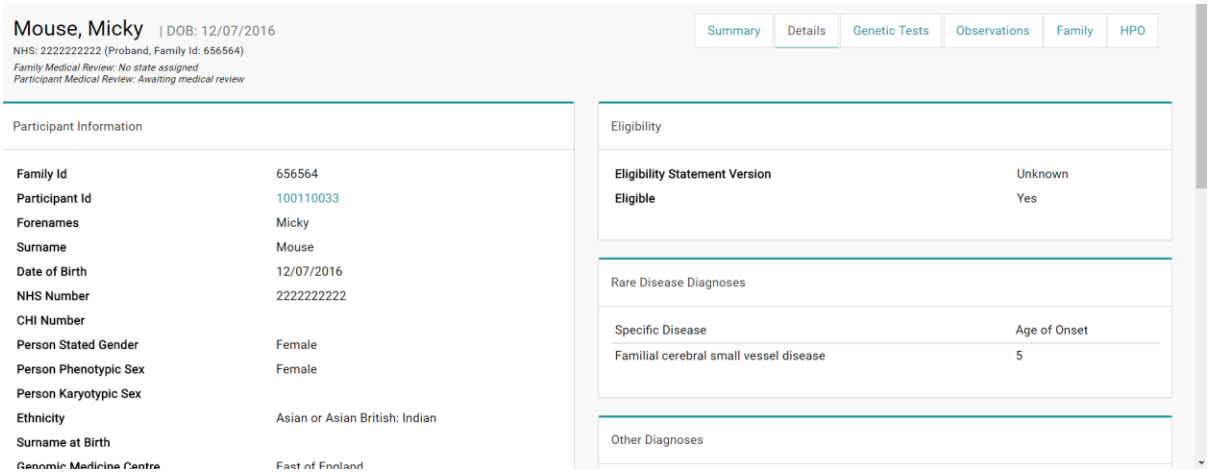
Event Date	
Reviewer	
Review Outcome	Awaiting medical review
Comments regarding outcome of medical review	
Specific Disease(s)	Familial cerebral small vessel disease
Comments regarding specific rare disease	

Medical Review - Family

Reviewer	
Event Date	
Review Outcome	No state assigned
Outcome Comments	

5.3.2.2 Details

The details tab includes identification and contact information for the participant, eligibility and diagnosis information, and consent/withdrawal information.

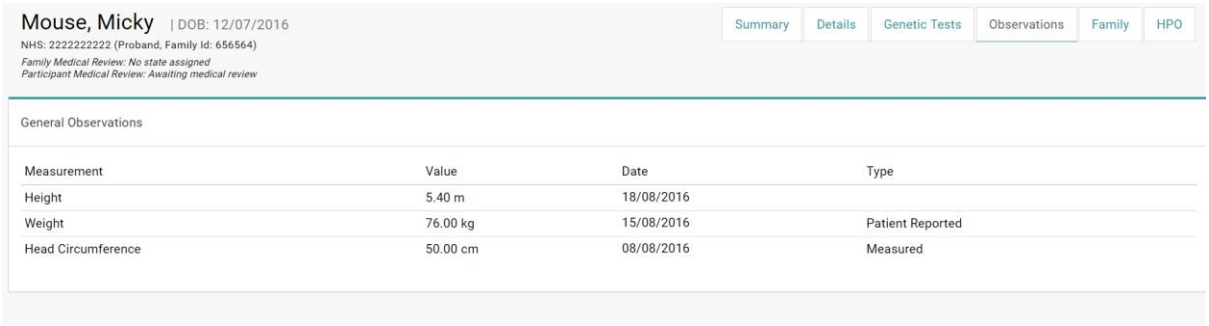


5.3.2.3 Genetic Tests

If any data on Genetic Test have been provided, this will be displayed on the Genetic Tests tab.

5.3.2.4 Observations

The Observations tab will display any General Observation data that the NHS GMC has submitted, such as height and weight.



5.3.2.5 Family

The Family tab currently displays a summary of the family members recruited, their disease status and medical review status. Each family member's participant ID and name contains a hyperlink that will take you to that participant's record.

From late January 2017, this view will also contain an image of the current pedigree for the family and details of all of the uploaded pedigree files. Once released for NHS GMC use, the Pedigree Editor will be accessible through a link here to allow pedigrees to be created and edited.

5.3.2.6 HPO

Any HPO terms that have been submitted as being 'present', 'absent' or of 'unknown' status will be available in the HPO tab, including modifiers.

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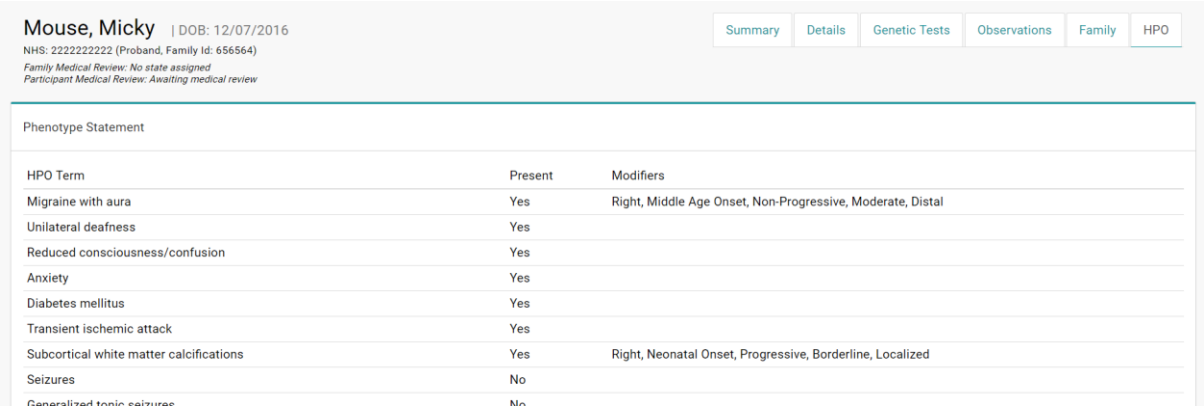

Mouse, Micky | DOB: 12/07/2016

NHS: 2222222222 (Proband, Family Id: 656564)

Family Medical Review: No state assigned

Participant Medical Review: Awaiting medical review

Summary | Details | Genetic Tests | Observations | Family | HPO

Phenotype Statement

HPO Term	Present	Modifiers
Migraine with aura	Yes	Right, Middle Age Onset, Non-Progressive, Moderate, Distal
Unilateral deafness	Yes	
Reduced consciousness/confusion	Yes	
Anxiety	Yes	
Diabetes mellitus	Yes	
Transient ischemic attack	Yes	
Subcortical white matter calcifications	Yes	Right, Neonatal Onset, Progressive, Borderline, Localized
Seizures	No	
Generalized tonic seizures	No	

6 If you need more information

If you are having issues or need more information on the LabKey views, please contact Genomics England's contact desk by telephone on 0300 3 035 035 or at ssd.genomics@hscic.gov.uk