

# Central England Haemato- Oncology & Oncology Research Biobank (CEHRB)

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## Annual Report April 2017 to March 2018

CEHRB C/o West Midlands Regional Genetics Laboratory  
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[www.bwc.nhs.uk/central-england-haemato-oncology-and-oncology-research-bioba](http://www.bwc.nhs.uk/central-england-haemato-oncology-and-oncology-research-bioba)

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## PART 1- Staff, Samples Stored and Patient Consent

### 1.1 CEHRB Staff

The following staff members, from the West Midlands Regional Genetics Laboratory contribute to CEHRB activities.

#### ***Director***

Prof Mike Griffiths      Email: [mike.griffiths@nhs.net](mailto:mike.griffiths@nhs.net)

#### ***Manager and HTA Designated Individual***

Sally Jeffries              Email: [sallyjeffries@nhs.net](mailto:sallyjeffries@nhs.net)

#### ***Scientific Support***

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#### ***Technical and Admin Support***

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#### ***Health and Safety Officer***

Nigel Coles                Email: [nigel.coles@nhs.net](mailto:nigel.coles@nhs.net)

#### ***Information and Technology Manager***

Gareth Masson            Email: [garethmasson@nhs.net](mailto:garethmasson@nhs.net)

## 1.2 Steering Committee

### ***Prof Charles Craddock (Chair and Representative for Cure Leukaemia)***

Consultant Haematologist  
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University Hospital Birmingham NHS  
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## 1.3 Types of samples and material stored

### *Samples*

- Peripheral Blood
- Marrow
- Solid tumour

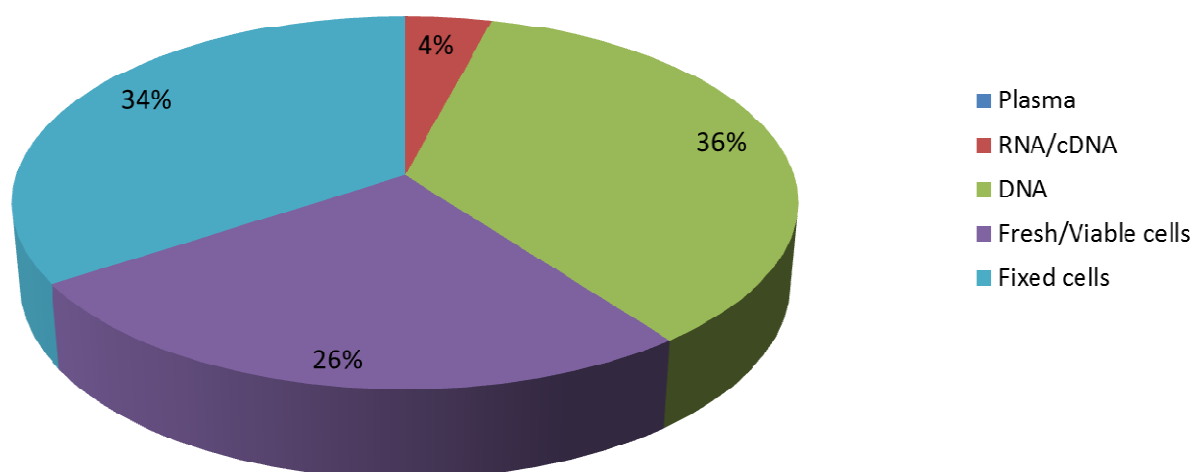
### *Material from peripheral blood and marrow*

- Cytogenetic fixed cell suspensions
- DNA
- RNA/cDNA
- Fresh peripheral blood and marrow
- Plasma (on request)
- Other (on request)

### *Material from Solid tumours (by request only)*

- Fresh tissue
- FFPE slides

### Percentage of sample types released from CEHRB between April 2017-March 2018



## 1.4 Hospitals involved in seeking patient consent

There are 10 hospitals that have a part funded Research Nurse who is involved in seeking patient consent specifically for CEHRB

- Royal Stoke University Hospital, Staffordshire
- County Hospital, Stafford
- Queen Elizabeth Hospital, Birmingham
- Russell's Hall Hospital, Dudley
- Heartlands Hospital, Birmingham
- University Hospital Coventry
- Worcestershire Royal Hospital, Worcester
- Alexandra Hospital, Redditch
- Sandwell General Hospital, West Bromwich
- New Cross Hospital, Wolverhampton

We have also received patient consent from the following hospitals:

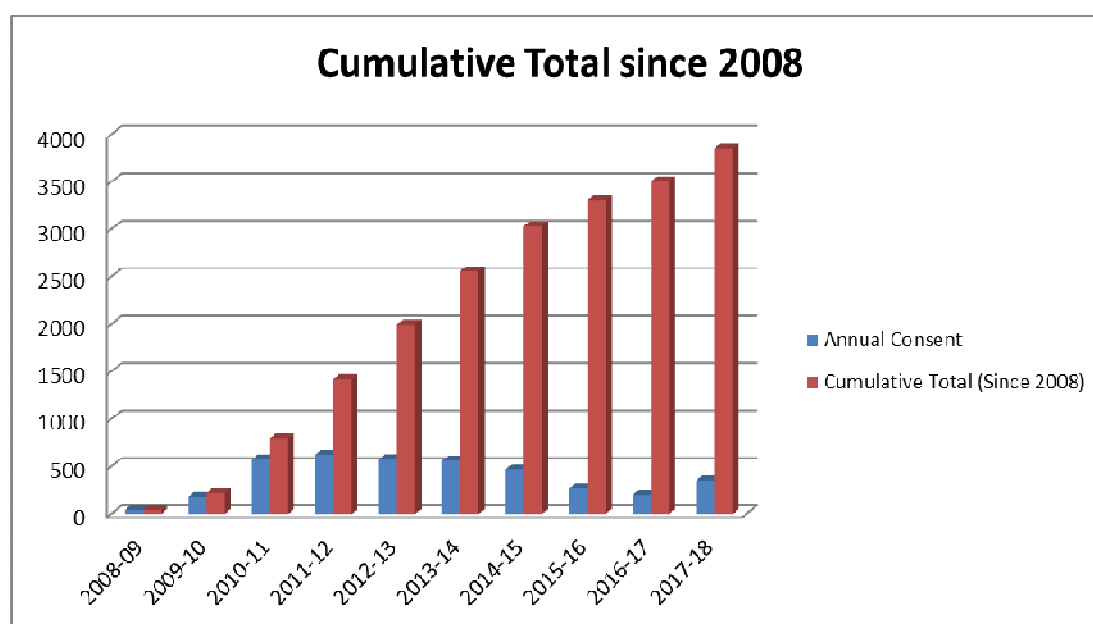
- BMI The Priory Hospital, Birmingham
- Nuffield Health Wolverhampton Hospital
- Mosely Hall Hospital, Birmingham
- Spire Little Aston Hospital, Sutton Coldfield
- Hereford County Hospital
- Princess Royal Hospital, Telford
- Kidderminster Hospital

## 1.5 Consented patient figures

The following data is based on consent data received from 11 sites:

Hospital List	
<b>ALBR</b>	Alexandra Hospital
<b>CHCB</b>	Centre for Clinical Haematology, Queen Elizabeth Hospital
<b>EBEB</b>	Heartlands Hospital
<b>KGKI</b>	Kidderminster General Hospital
<b>NXWV</b>	New Cross Wolverhampton
<b>RUDU</b>	Russell's Hall, Dudley
<b>SDMS</b>	Stafford District General
<b>SDSA</b>	Sandwell Health Care NHS Trust
<b>UHNS</b>	University Hospital North Staffordshire
<b>WGCO</b>	Walsgrave Hospital Coventry
<b>WRWO</b>	Worcester Royal

### 1.5.1 Cumulative patient consent since April 2008



- The total number of patients consented during 2017-2018 is **351**. The number of patients consenting has decreased by **44%** since 2011, however there has been an increase of **43%** since last year. This may reflect the biobank targeting requests for specific projects.

### 1.5.2 Patients consented from Individual Hospitals

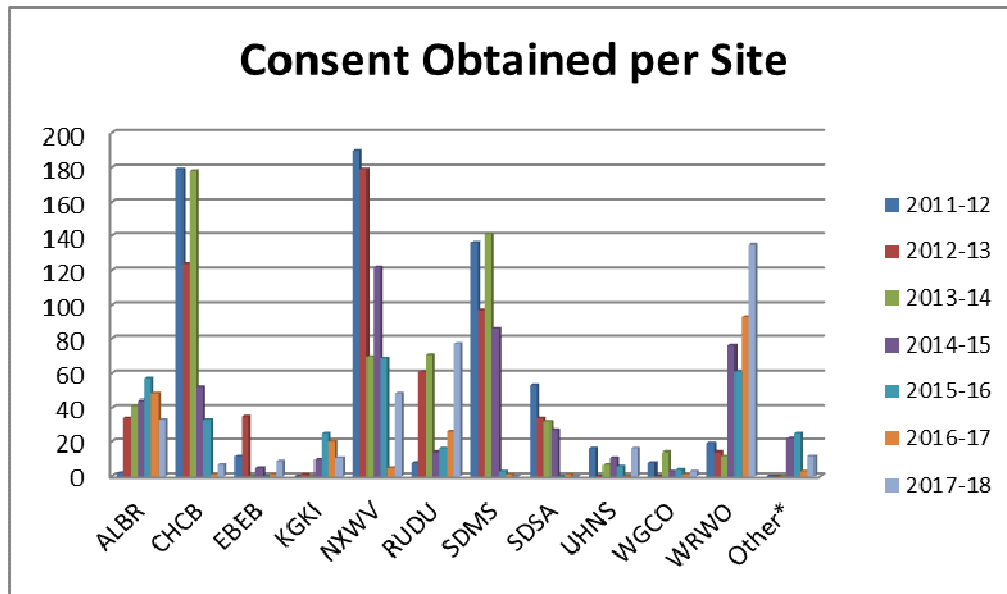
Patient consent has predominantly been secured from **Alexandra, New Cross, Russell’s Hall** and **Worcester Royal** hospitals during 2017-2018.

Number of patients consented per site:

	2008-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Total between 2011-18
<b>ALBR</b>		2	34	41	44	57	48	33	259
<b>CHCB</b>		179	124	178	52	33	1	7	574
<b>EBEB</b>		12	35	0	5	0	1	9	62
<b>KGKI</b>		0	1	0	10	25	20	11	67
<b>NXWV</b>		190	179	70	122	69	5	48	683
<b>RUDU</b>		8	61	71	14	16	26	77	273
<b>SDMS</b>		136	97	141	86	3	1	0	464
<b>SDSA</b>		53	34	32	27	0	1	0	147
<b>UHNS</b>		16	0	7	11	6	0	16	56
<b>WGCO</b>		8	0	14	3	4	1	3	33

<b>WRWO</b>		19	14	12	76	61	93	135	410
<b>Other*</b>		0	0	0	22	25	3	12	62
<b>Grand Total</b>	<b>796</b>	<b>623</b>	<b>579</b>	<b>566</b>	<b>472</b>	<b>299</b>	<b>200</b>	<b>351</b>	<b>3886</b>

\*Other includes consents from unfunded centres but excludes BCCB (Paediatrics).



## PART 2: Projects and Publications

- The total number of samples sent out to ethically approved projects during April 2017 to March 2018 is **73** (compared to 1022 in 2016-17). Details are provided below.
  - **5** projects have received samples from CEHRB during this period.
    - 2 new projects and 3 existing projects.
  - **2** new projects were approved during this period.
- Since Sept 2009 CEHRB has provided **3935** samples to **65** of a total 70 approved projects.
- Some of these projects continue to receive samples.



## 2.1 Existing projects that have received samples from CEHRB between April 2017 and March 2018

Project No.	Principal Investigator	Laboratory Address	Sponsor	Samples Sent	
				Type	Number
31	Prof Peter Cockerill & Prof Constanze Bonifer	Institute of Biomedical Research, The University of Birmingham	Leukaemia and Lymphoma Research	Marrow	10
				Blood	5
34	Dom McMullan	West Midlands Regional Genetics Laboratory, Birmingham Women's Hospital	Cytocell	Fixed Cells	25
63	Prof Peter Cockerill & Prof Constanze Bonifer	Institute of Biomedical Research, The University of Birmingham	Bloodwise	Marrow	2
				Blood	2

## 2.2 Newly approved projects that have received samples from CEHRB Between April 2017 and March 2018

Project No.	Principal Investigator	Laboratory Address	Sponsor	Samples Sent	
				Type	Number
69	Paula Page	West Midlands Regional Genetics Laboratory, Birmingham Women's Hospital	Celgene	DNA	26
70	Dr Lisa Russell	Northern Institute for Cancer Research, Newcastle University	Bloodwise	RNA	3

## 2.3 List of publications/presentations that have used samples from CEHRB

- Since 2009 there have been **22** publications and at least 16\* oral presentations/posters that have used samples received from CEHRB. (\* data on oral presentations collated since 2010).
- There have been **2** publications and **4** oral presentations/posters/abstracts during the 2017-2018 period, detailed below.

### *Publications (2017/2018)*

1. RUNX1-ETO and RUNX1-EVI1 Differentially Reprogram the Chromatin Landscape in t(8;21) and t(3;21) AML. *Justin Loke, Salam A. Assi, Maria Rosaria Imperato, ..., Peter N. Cockerill, Olaf Heidenreich, Constanze Bonifer*. Cell Reports. 2017 May 23; 19: 1654-1668
2. Prognostic significance of high GFI1 expression in AML of normal karyotype and its association with a FLT3-ITD signature. *Volpe G, Walton DS, Grainger DE, Ward C, Cauchy P, Blakemore D, Coleman DJL, Cockerill PN, Garcia P, Frampton J*. Scientific Reports. 2017; 7: 11148

### *Oral presentations and meeting abstracts (2017/2018)*

1. Comparative analysis of a RNA sequencing panel for detection of genetic alterations in haematological malignancies. *M.Connolly, S.Jeffries, S.Dyer, A.Yeung, K.Piechocki, M.Griffiths*. (Poster: ESHG 2017)
2. RNA sequencing to detect gene fusions in acute leukaemia: A proof of principle study. *Melissa Connolly*. (Presentation: ACGS 2017)
3. RNA sequencing to detect gene fusions, altered expression and mutations in leukaemia. *Melissa Connolly* (Presentation: CPM 2017)

## PART 3: Targets

### 3.1. Promotion of the Biobank

- Due to very limited resources the biobank has not undertaken any promotional work this year
- The biobank is present on the following biobank registries;
  - NCRI Confederation of Cancer Biobanks
    - <http://ccb.ncri.org.uk/>
  - Orphanet
    - <http://www.orpha.net>

### 3.2. Sustainability of CEHRB

The biobank has yet to become sustainable. Funding is still to be sought.

### 3.3. Review of targets and other achievements for 2017-2018

#### *Targets Achieved*

- Ensure continued improvement in patient recruitment.
  - 43% increase in patient consent figures since last year

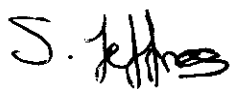
#### *Targets Not Achieved*

- Approve and supply samples to at least 5 projects
  - 2 new projects approved in period
- Seek to establish further collaboration with global Biobank networks to increase income and research portfolio.
- Secure additional funding

Targets not achieved due to very limited staff resources.

### 3.4. New targets for 2018-2019

- Secure additional funding is the main priority
  - Seek to establish further collaboration with global Biobank networks to increase income and research portfolio.
  - Seek and submit grants for biobank funding
- Approve and supply samples to at least 5 projects
- Ensure continued patient consent by liaising with RRN.



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