

# **Central England Haemato-Oncology (and Oncology) Research Biobank (CEHRB)**

**REC reference: 09/H0405/12**

## **Annual Report**

**April 2013 to March 2014**

**CEHRB**

**C/o West Midlands Regional Genetics Laboratory**

**Birmingham Women's Hospital**

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## **PART 1- Staff and 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@bwnft.nhs.uk](mailto:mike.griffiths@bwnft.nhs.uk)

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

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

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

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#### ***Chief Technology and Information Officer***

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## 1.2 Steering Committee

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

Consultant Haematologist  
Centre for Clinical Haematology  
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### ***Dr Richard Chasty (Lymphoma Group)***

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### ***Dr Guy Pratt (Myeloma Group)***

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### ***Dr Jeff Neilson (Ethics Representative)***

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### ***Kelly Hard (Research and Development)***

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### 1.3 Types of samples stored

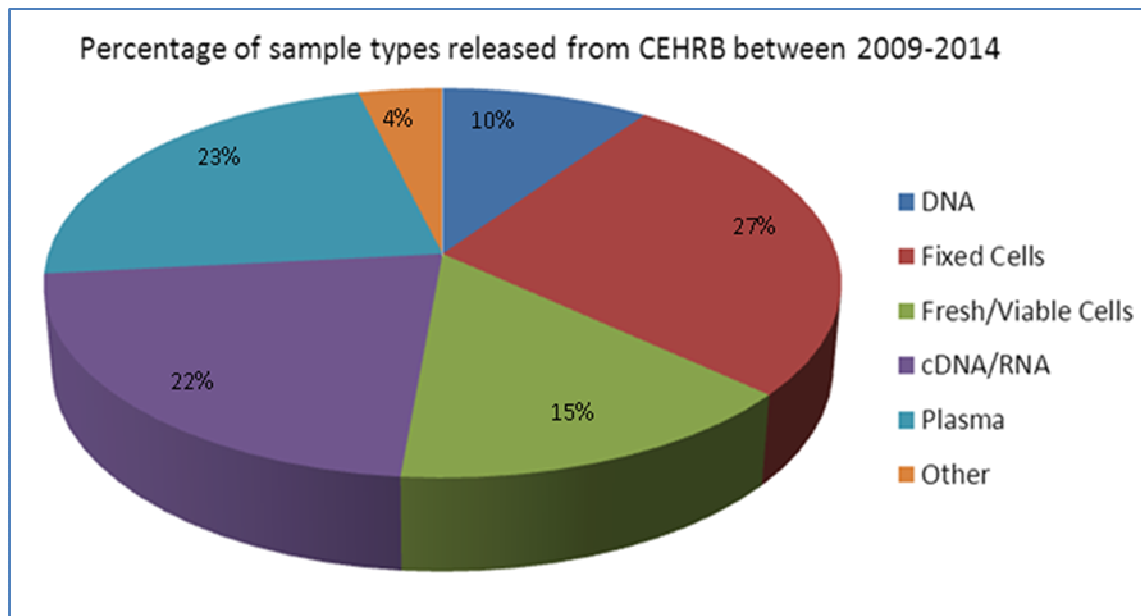
Blood and bone marrow stored as,

- Fixed cell suspensions
- DNA
- RNA
- Viable cells
- Plasma
- Other (on request)

\* Fresh Blood and bone marrow can also be provided on request.

Solid tumours (on request);

- Fresh tissue
- FFPE slides



### 1.4 Hospitals involved in patient recruitment

There are 10 hospitals that have a funded Research Nurse and are currently involved in seeking patient consent.

- University Hospital of North Staffordshire
- Stafford District General Hospital
- Centre for Clinical Haematology, Queen Elizabeth Hospital
- Russell's Hall Hospital, Dudley
- Birmingham Heartlands Hospital
- University Hospital, Walsgrave, Coventry
- Worcestershire Royal Hospital
- Alexandra Hospital, Redditch
- Sandwell General Hospital
- New Cross, Royal Wolverhampton Hospital

We have previously received patient consent from unfunded centres;

- Priory Hospital
- Nuffield Hospital, Wolverhampton
- Mosely Hall Hospital
- Little Aston Hospital, Sutton Coldfield
- Hereford
- Princess Royal Hospital, Telford
- Kidderminster Hospital
- Birmingham Children's Hospital

With additional funding there is potential to seek patient consent from the additional hospitals,

- Walsall Manor Hospital
- Warwick Hospital
- Rugby Hospital
- George Eliot Hospital, Nuneaton
- Royal Shrewsbury Hospital
- Queens Hospital, Burton

## 1.5 Patient Recruitment figures

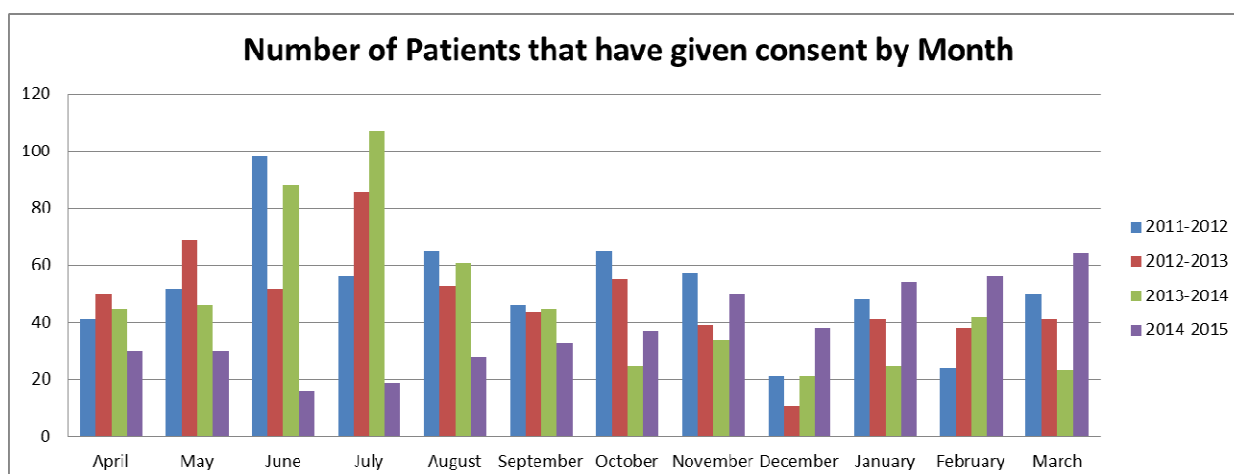
### 1.5.1 Monthly breakdown of patient recruitment

The following patient recruitment figures are based on consent data received from 12 sites;

#### Hospital List

ALBR	Alexandra Hospital
BCCB	Birmingham Children's Hospital
CHCB	Centre for Clinical Haematology
EBEB	Heartlands Hospital
KGKI	Kidderminster General Hospital
NXWV	New Cross Wolverhampton
RUDU	Russell's Hall, Dudley
SDMS	Stafford District General
SDSA	Sandwell Health Care NHS Trust
UHNS	University Hospital North Staffordshire
WGCO	Walgrave Hospital Coventry
WRWO	Worcester Royal

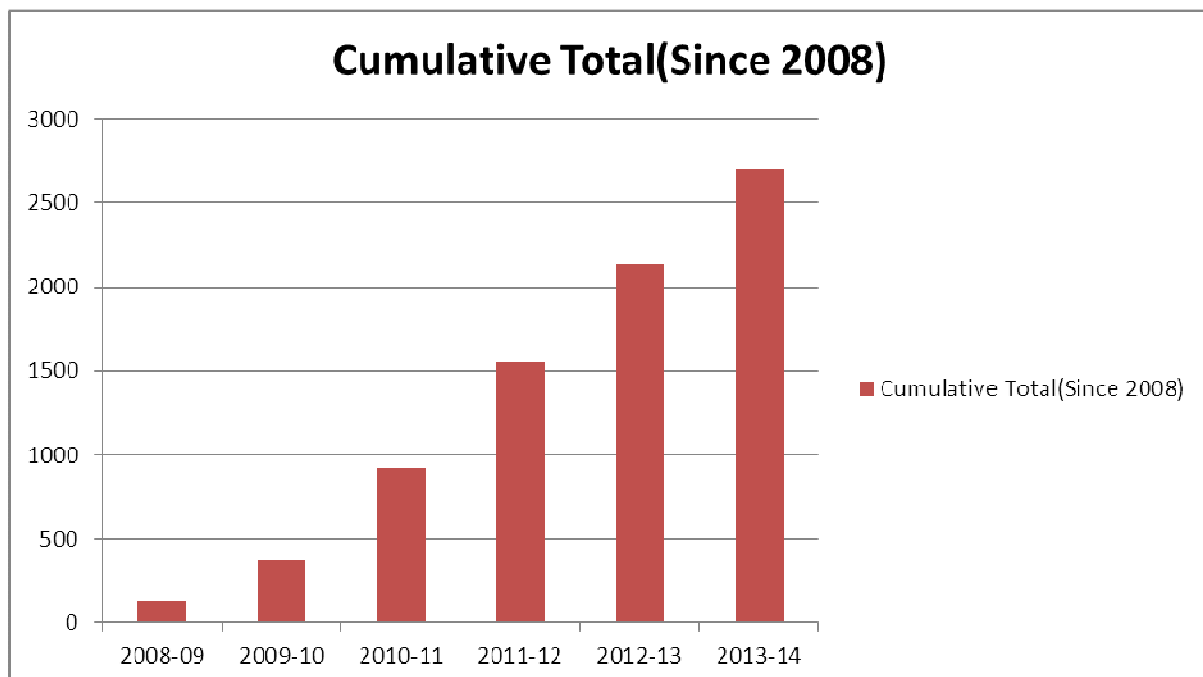
Month	2011-12	2012-13	2013-2014
April	41	50	45
May	52	69	46
June	98	52	88
July	56	86	107
August	65	53	61
September	46	44	45
October	65	55	25
November	57	39	34
December	21	11	21
January	48	41	25
February	24	38	42
March	50	41	23
Totals	623	579	562



- Overall the number of patients consenting has decreased since 2011 (by 11.1%), however this can be attributable to 1) limiting resources such as funding for research nurses and 2) the assimilation of the recently amended patient consent form (V1.4).

### 1.5.2 Cumulative Recruitment since April 2008

	<b>Annual Consent</b>	<b>Cumulative Total (Since 2008)</b>
<b>2008-09</b>	129	129
<b>2009-10</b>	247	376
<b>2010-11</b>	548	924
<b>2011-12</b>	633	1557
<b>2012-13</b>	579	2136
<b>2013-14</b>	562	2698
<b>Grand Total</b>	<b>2698</b>	



### **1.5.3 Patient Recruitment from Individual Hospitals**

We have received patient consent from 12 sites within 2011-2014. The table below represents 'potential' recruitment opportunities within 11 of these sites. The data is based on the number of presentation or staging samples received by the WMRGL from each site during the given period.

	2011-12	2012-13	2013-14	Grand Total
<b>ALBR</b>	72	89	78	239
<b>CHCB</b>	205	299	334	838
<b>EBEB</b>	137	166	220	523
<b>KGKI</b>	4	0	5	9
<b>NXWV</b>	321	267	385	973
<b>RUDU</b>	132	117	133	382
<b>SDMS</b>	285	206	276	767
<b>SDSA</b>	88	96	78	262
<b>UHNS</b>	143	199	281	623
<b>WGCO</b>	100	119	116	335
<b>WRWO</b>	171	169	188	528
<b>Grand Total</b>	<b>1658</b>	<b>1727</b>	<b>2094</b>	<b>5479</b>

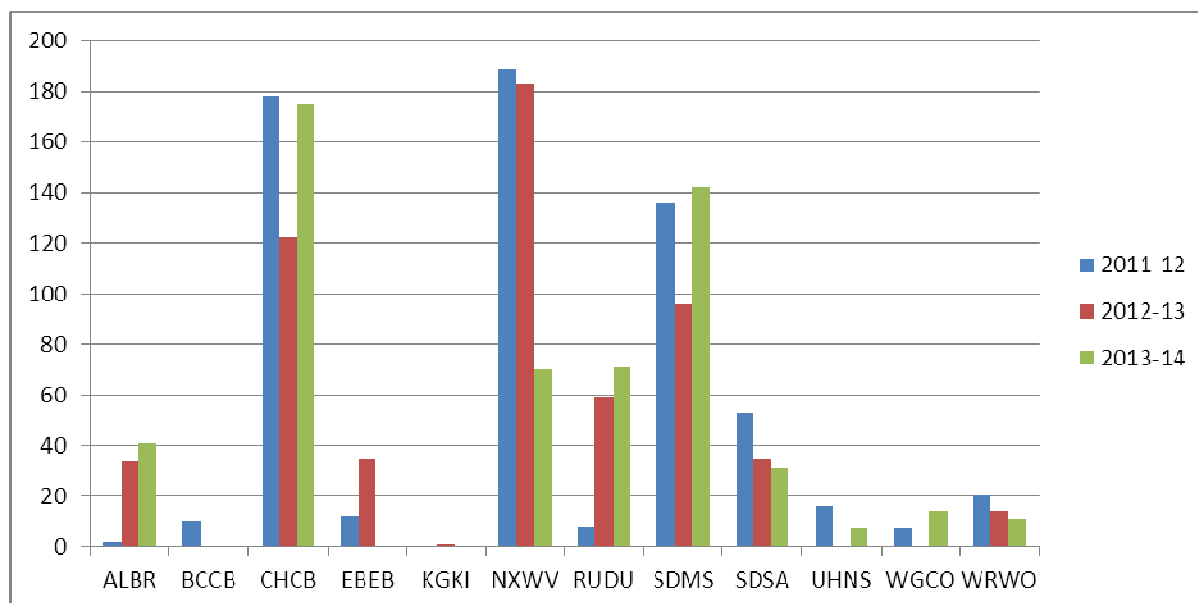
Actual consent data achieved for each site is given in the table below.

	2011-12	2012-13	2013-14	Grand Total
ALBR	2	34	41	77
BCCB*	10	0	0	10
CHCB	178	122	175	475
EBEB	12	35	0	47
KGKI	0	1	0	1
NXWV	189	183	70	442
RUDU	8	59	71	138
SDMS	136	96	142	374
SDSA	53	35	31	119
UHNS	16	0	7	23
WGCO	7	0	14	21
WRWO	21	14	11	46
<b>Grand Total</b>	<b>632</b>	<b>579</b>	<b>562</b>	<b>1773</b>

Actual Consent data for sites during 2011-14

\*While we have previously received consent data from patients of BCCB, we do not target paediatric patients for consent, nor do we use material or patient data received from this group in any research capacity.





Consent data for each site as a percentage of potential recruitment (consent v diagnostic/staging)

	2011-12	2012-13	2013-14
<b>ALBR</b>	2.8	38.2	52.6
<b>BCCB</b>	4.4	0.0	0.0
<b>CHCB</b>	86.8	40.8	52.4
<b>EBEB</b>	8.8	21.1	0.0
<b>KGKI</b>	0.0	#DIV/0!	0.0
<b>NXWV</b>	58.9	68.5	18.2
<b>RUDU</b>	6.1	50.4	53.4
<b>SDMS</b>	47.7	46.6	51.4
<b>SDSA</b>	60.2	36.5	39.7
<b>UHNS</b>	11.2	0.0	2.5
<b>WGCO</b>	7.0	0.0	12.1
<b>WRWO</b>	12.3	8.3	5.9
<b>Grand Total</b>	<b>33.5</b>	<b>30.0</b>	<b>23.9</b>

Patients are not necessarily targeted at presentation and therefore the consent date may postdate the corresponding sample. This could reflect the anomaly for KGKI during 2012-13.

## PART 2: Projects and Publications

- The total number of samples sent out to ethically approved projects for April 2013 – March 2014 is 294 (478 in 2012-13). Details are provided below.
  - 13 projects have received samples from CEHRB.
    - 5 new projects and 8 existing projects.
  - 11 new projects were approved
  - 6 sample requests were rejected due to limited resources, unable to provide material or information.
- Since Sept 2009 CEHRB has provided 2003 samples to 48 projects. Some of these projects continue to receive samples.

## 2.1 Existing projects that have received samples from CEHRB between April 2013 and March 2014

Project No.	Project Title	Principal Investigator	Laboratory Address	Sponsor	Samples Sent	
					Type	Number
1	40-50 Chromosomes, other group in ALL (CRLF2 Study).	Professor Christine Harrison	Newcastle University	Leukaemia Research Fund	RNA/cDNA	3
					Fixed cells	2
3	Histone deacetylase inhibitors, a new class of anti-tumour agents in AML.	Dr Tatjana Stankovic	CRUK Institute for Cancer Studies	Kay Kendall Leukaemia Fund	Marrow	4
18	Prospective study of trough imatinib levels in newly diagnosed Chronic Myeloid Leukaemia patients and its correlation with response.	Professor Deepak Chandra	University Hospital North Staffordshire	Novartis	Plasma	50
26	The role of c-Myb in childhood T-ALL	Victoria Weston	Birmingham-ICS	Not stated	RNA	1
31	Dissecting Mechanisms of Regulation of Gene Expression in Human Leukaemia	Prof Peter Cockerill and Constanze Bonifer	IBR Medical School, University of Birmingham	Leukaemia and Lymphoma Research	Blood	5
					Marrow	4
34	Validation of Cytocell Ltd. FISH probes for diagnostic use in haematological oncology referrals.	Dom McMullan	WMRGL	Cytocell	Fixed Cells	162
35	The Molecular Pathogenesis of Atypical MPN and Related Disorders	Nicholas Cross	Wessex Regional Genetics Laboratory	KKLF and LLR	DNA	15

39	Investigation of the Role of Small Nucleolar RNAs (snoRNAs) and snoRNA Host Genes in Blood Cell Cancers	Prof Gwyn T. Williams	ISTM/School of Life Sciences, Keele University	Not Stated	DNA	18
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## 2.2 Newly approved projects that have received samples from CEHRB Between April 2013 and March 2014

Project No.	Project Title	Principal Investigator	Lab. Address	Sponsor	Samples Sent	
					Type	Number
41	The MYB Family of Proteins in Myeloid Disease	Prof Jon Frampton	Institute for Biomedical Research, College of Medical and Dental Sciences, Birmingham University	Not Stated	Marrow	4
44	Detection RNA fusion transcripts in a multiplex fashion using the Affymetrix whole human transcriptome microarray.	Dr Suzanne Dee	Affymetrix, Inc Santa Clara, California	Not Stated	RNA	10
45	Investigation of the Role of Small Nucleolar RNAs (snoRNAs) and snoRNA Host Genes in AML	Prof Gwyn T. Williams	ISTM/School of Life Sciences, Keele University	Not Stated	DNA	11
46	Discovering the common effects of leukaemogenic tyrosine kinases on the proteome and phosphoproteome	Prof Anthony Whetton	University of Manchester, Wolfson Molecular Imaging Centre	Leukaemia and Lymphoma Research	Marrow	1
49	Genetic definition of the BCR-ABL1-like sub-group in acute lymphoblastic leukaemia	Ms Claire Schwab	Leukaemia Research Cytogenetics Group, Northern Institute for Cancer Research, Newcastle University	Leukaemia and Lymphoma Research	RNA	4

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

- Since 2009 there have been 13 paper publications and 7 oral presentations that have used samples received from CEHRB.
- There was 1 paper publication during the 2013-2014 period, detailed below.

### **Publications (2013/2014)**

1. C/EBP $\alpha$  and c-Myb regulate FLT3 expression in AML. Volpe G, Walton DS, Del Pozzo W, Garcia P, Dassé E, O'Neill LP, Griffiths M, Frampton J, Dumon S. Leukemia advance online publication, 1 March 2013; doi:10.1038/leu.2013.23

### **Oral presentations and meeting abstracts (2013/2014)**

1. EHA 2013. The Molecular Pathogenesis of Atypical MPN and Related Disorders. *Nick Cross:*

## **PART 3: Targets**

### **3.1 Review of targets for 2013-2014**

Due to limited resources most targets have not been achieved, to include in next years targets.

- Supply at least 5 new projects with material.
- Ensure continued improvement in patient recruitment by liaising with RRN.
- Review SOPs for sample selection and send out of material, ensuring better understanding of consent by staff.
- Extend consent to children (requires amendment to ethics)
- Extend storage to samples primarily sent for research (requires amendment to ethics)
- Ensure sustainability of Bio-bank by sourcing funding

### **3.2 New Targets for 2014-2015**

- Approve and supply samples to 5 or more projects
- Ensure continued improvement in patient recruitment by liaising with RRN.
- Review SOPs for sample selection and send out of material, ensuring better understanding of consent by staff.
- Extend consent to children (requires amendment to ethics)
- Gain approval for requests for additional sample and information (ethics)
- Secure additional funding



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