SEPTEMBER 2025

Professionals' Newsletter

Funded by: CANCER RESEARCH UK for Children & Young People | Blood cancer UK

WELCOME TO THE VIVO Biobank Newsletter

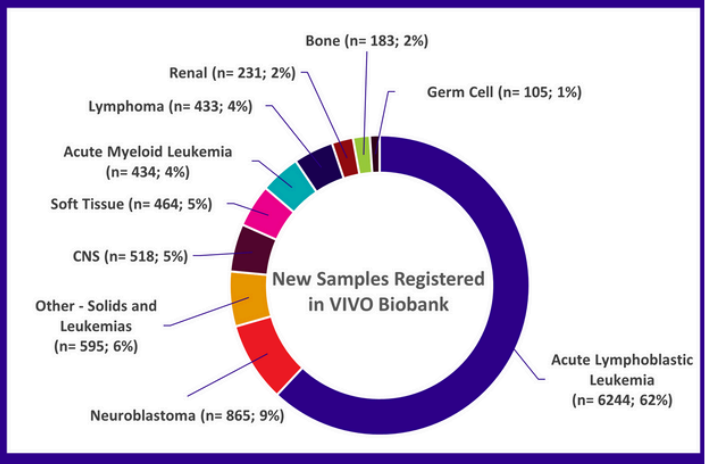
September is internationally recognised as **Childhood Cancer Awareness Month**. For those of us working within this field, it provides a moment to reflect on the collective impact of our contributions. Every sample you help us collect, process, and store strengthens the foundation of research that is driving new insights into childhood cancers.

In this issue, we highlight how VIVO samples have supported high-impact publications, share updates from recent conferences, latest banking figures and introduce new members of the team. We will also provide an overview of our operational metrics to show the tangible results of your efforts across the UK.

Your ongoing expertise and commitment ensure that VIVO Biobank continues to be a trusted resource, accelerating translational research and, ultimately, improving outcomes for children and young people with cancer.

📌 Inside this Issue :

Biobank in Numbers



Since **July 2022**, VIVO Biobank has registered over **10,000** new samples (excluding CCLG legacy collections). The majority are from acute lymphoblastic leukaemia (ALL), but we are now focusing on increasing the number of solid tumour samples to strengthen support for a wider range of research projects.

Impact spotlight : research powered by VIVO Biobank

Childhood Leukaemia Research: Uncovering the "Cut-and-Run" Process

Dr Joan Boyes

VIVO Biobank recently supported research that uncovered a completely new mechanism behind childhood leukaemia relapse, published in Nature:
Excised DNA circles from V(D)J recombination promote relapsed leukaemia | Nature

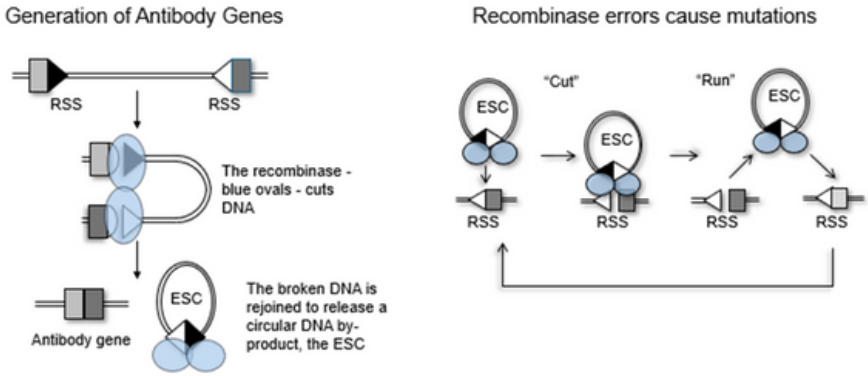
"Many thanks indeed for your support of this work. Without the VIVO Biobank samples, we simply would not have made these discoveries." - Dr Joan Boyes

This study shows how leftover DNA from normal antibody production can combine with DNA-cutting enzymes to create breaks in important genes — a process the researchers call "cut-and-run." These breaks can trigger changes that lead to leukaemia or cause it to return after treatment.

Q&A: Understanding the "Cut-and-Run" Process

What is this research about?

Our immune system shuffles DNA inside immune cells to make antibodies, but mistakes can happen. Researchers discovered a new type of DNA damage called "cut-and-run," where leftover DNA teams up with DNA-cutting enzymes and moves to other parts of the genome, causing breaks linked to childhood leukaemia.



"How 'cut-and-run' DNA damage happens in immune cells and can lead to leukaemia relapse."

Why is it important?

Although most children with leukaemia are successfully treated, relapses are harder to cure. "Cut-and-run" may be a key reason why some leukaemias return, making this discovery crucial for improving outcomes.

What are the researchers doing?

Using samples from our biobank, scientists are comparing DNA from children's leukaemia samples at diagnosis and relapse. They are tracking how "cut-and-run" contributes to harmful mutations, which could help identify which patients are at higher risk of relapse.

How could this help patients in the future?

Since "cut-and-run" relies on leftover DNA that isn't essential for normal immune function, it could potentially be targeted with new drugs. Blocking this process may prevent relapse and improve survival, reducing the need for aggressive treatments.

VIVO Biobank at the CCLG Conference 2025

In March, members of our team attended the **Children's Cancer and Leukaemia Group (CCLG) Conference**. This was a fantastic opportunity to connect with the childhood cancer research community.

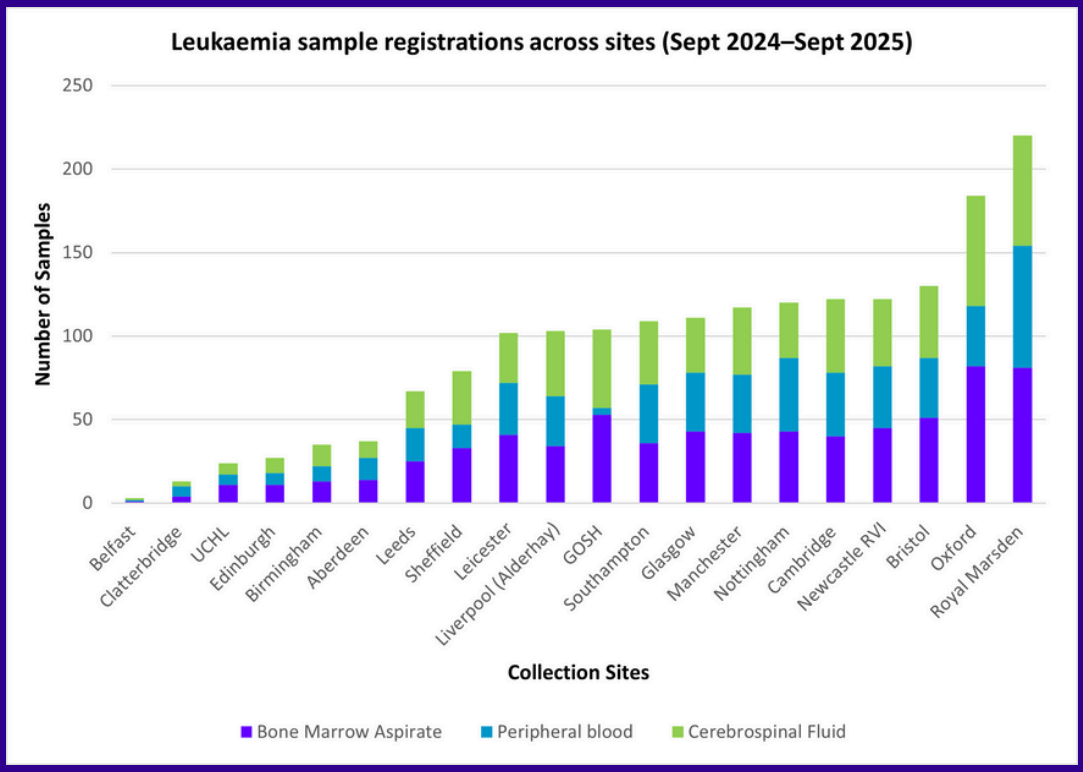
Highlights from the conference:

- Hearing about the latest progress in childhood cancer research and treatment.
- Networking with researchers, clinicians, and specialist nurses who make biobanking possible.
- Raising awareness of the importance of sample access for breakthroughs.
- Exploring new opportunities for collaboration.

A huge thank you to CCLG for hosting such an inspiring event, and to everyone who stopped by our stall to learn more about our work (and maybe pick up some sweets along the way!).

Latest banking figures across VIVO sites (Sept 2024 - Sept 2025)

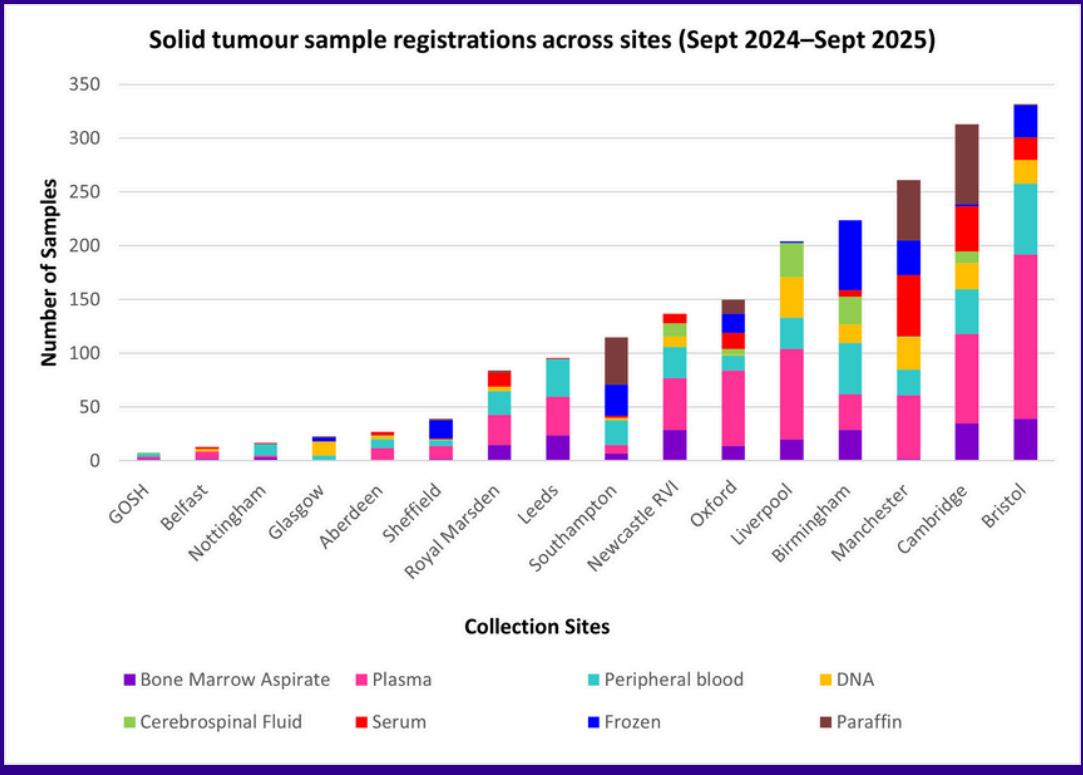
Here we share the latest figures from across our network of collection sites. Each sample registered over the last year represents the expertise, care and teamwork that make the biobank possible.



Leukaemia contributions from each site

Thank you for your continued efforts in banking solid tumour samples. Collecting more frozen and paraffin samples, in addition to liquid samples, will help us maximise the value of the biobank for future research.
A special thanks goes to **Manchester**, **Birmingham**, **Bristol**, **Southampton** and **Cambridge** for their excellent **frozen** and **paraffin** contributions this year.

Solid tumour contributions from each site



Your Fast Flowchart:
Leukaemia sample collection
(and other haematological disorders)

Peripheral Blood

→ 3-5ml
→ Streck tube

Bone Marrow

→ 3-5ml
→ ACD tube

Cerebrospinal Fluid

→ 10 drops
→ centrifuge tube

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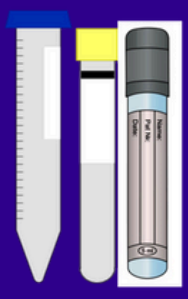
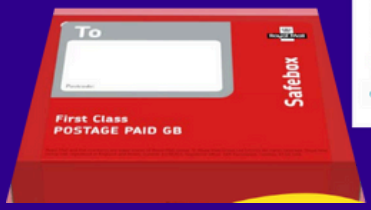
DELIVERING YOUR SCIENCE

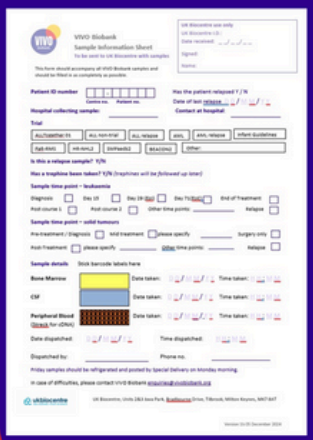
REMINDER!

- Use sample kits provided by VIVO Biobank: https://vivobiobank.org/staff/clinical
- Post in Safe-Box - immediately after collection (ensuring SIS is included)
- **Friday samples**: Bone marrow in ACD & CSF in centrifuge tube → refrigerate and send on Monday
- **Do NOT** refrigerate Streck tubes

SIS for liquid samples sent to UK Biocentre







Your Fast Flowchart: Solid Sample collection

Plasma needed for Hodgkin's ctDNA research

We have an active request from researchers for plasma samples from paediatric **Hodgkin's** patients. This resource is currently limited, so please keep an eye out during collections and bank plasma whenever possible.

Don't Forget the Dates!

PAXgene tubes only last for **1 year**. To make sure none go to waste, please:

- check expiry dates on arrival
- use older tubes first
- order new tubes in good time

Trial sample?

YES

Follow trial manual for sample handling

Process & store on site OR send to **Newcastle Biobank**

NO

Paraffin Embedded Tissue

+

Fresh Frozen Tissue

Store locally to be transferred to **Newcastle Biobank** regularly

Peripheral Blood (Streck tubes)

+

Bone Marrow (ACD)

+

Cerebrospinal Fluid (Falcon)

ukbiocentre DELIVERING YOUR SCIENCE

- **Patient Registration Form (PRF)**→ complete for every consented patient and send it our NHS email: *nuth.vivobiobank@nhs.net*
- **Sample Registration Form (SRF)**→ for samples stored on site to be transferred to **Newcastle Biobank**, complete and send to our NHS email: nuth.vivobiobank@nhs.net, **at the time** of collection
- **Sample Information Sheet (SIS)**→ include with each sample sent to **UK Biocentre**

Don't Forget the Forms!

New faces at VIVO Biobank!

In 2025, we've seen some changes in our team, as we said goodbye to a few familiar faces and welcomed new colleagues.

- **Taofik Adetoro**, our former Biobank Manager, moved on in September 2024 to take up an exciting role as a Trainee Clinical Scientist in the NHS
- **Emma Paizes** also left in September 2024 for a Trainee Clinical Scientist post in the NHS, but kindly joined us for the farewell tea.
- **Beth Cragg**, who combined her MRes studies in Edinburgh with part-time work for the biobank, officially finished with us at the end of August and is now heading off to travel before embarking on a new career.

We thank them for their dedication to VIVO Biobank and are excited to welcome three new staff members to continue their excellent work...

Beth's leaving do marked a smooth handover to welcome new colleagues into the team.

*Left to Right: Rachel Howarth, Robyn Watson (**Research Assistant**), Anne Thomson (**Biobank Manager**), Emma Paizes, Dona Saji, Eszter Tuboly, Deb Tweddle (**Director**) and Beth Cragg.*

- **Eszter Tuboly - Biobank Manager**

Eszter manages the **solid tumour side of the biobank**. She is working hard to open new TYA sites and encourage solid tumour banking, as well as keeping us on track with our bigger, long-term goals as a biobank.

- **Rachel Howarth - Research Assistant**

Rachel plays a key role within the biobank, co-ordinating the **Sample Data and Access Committee (SDAC)** applications from initial enquiries through to sending out samples to the researchers. This includes liaising with PPIE members who play a key role in reviewing applications we receive.

- **Dona Saji - Research Assistant**

Dona leads our **Patient and Public Involvement and Engagement (PPIE) group,** working closely with its members to exchange ideas and liaise with researchers. She also manages our social media and publicity, ensuring we raise awareness of the importance of biobanking, and highlight important research supported by our bank.

Patient and public involvement

One of the most important parts of the VIVO Biobank is the input of patients and the public. Their perspectives ensure that everything we do truly serves the community we are here to support.

We are proud to have **15 active PPIE members**, who bring their experiences and expertise to help shape our work. They play a vital role in a range of our committees and join us at quarterly meetings. Their contributions help us:

- Communicate research in clear and meaningful ways.
- Understand the challenges patients and families face.
- Make sure our biobank is accessible and responsive to the community.

*Our PPIE members are **invaluable partners**- helping us engage effectively, overcome barriers, and ensure that the patient and family voice is at the heart of biobank decisions.*

👉 If you would like to find out more or are interested in joining our PPIE committee, please visit the PPI page on our website: **https://vivobiobank.org/ppi** for more information and contact details. Everyone is welcome to apply.

STAY CONNECTED WITH US!

Keep up to date with the latest news, research highlights, and behind-the-scenes updates from VIVO Biobank:

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VIVOBIOBANK

Follow us to see how our samples are powering research and making real-world impact.