



Professionals' Newsletter

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VIVO BIOBANK NEWSLETTER - SPRING UPDATE 2026

Welcome to our **Spring edition** of the VIVO Biobank newsletter.

As we progress through 2026, we're pleased to share updates from across the biobank, including our latest banking figures, research highlights, new team members, and plans for the upcoming CCLG Annual Conference. We also provide updates on our new patient certificates of acknowledgment, our developing linkages with Genomics England, and key reminders to support consistent biobanking practice across all sites.

Thank you to our clinical colleagues for your continued partnership in enabling high-quality sample collection and data submission to strengthen the value of this resource and support improved outcomes for children and young people with cancer.



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Key Reminders: Clinical trails, sample processing & shipments

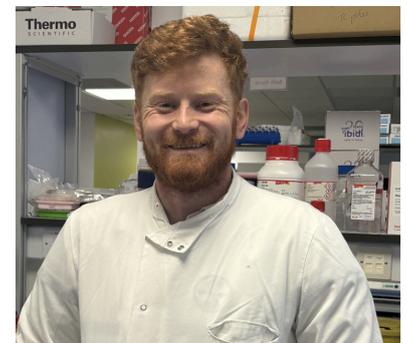
Meet Our New Research Technicians

We're pleased to welcome two new Research Technicians to the VIVO Biobank team. Based in the Newcastle central biobank, they work hands-on with samples every day, carefully processing and storing them so they are preserved to the highest standards. Their work helps ensure researchers receive the best possible material to support vital childhood cancer research.



Kai Oxley

Kai holds a Master's degree in Stem Cell Technology and Regenerative Medicine. In his previous role, he researched personalised regenerative therapies using blood derivatives and mesenchymal stem cells to accelerate bone regeneration.



John McAlerly

John completed a Master's in Research (MRes) in Molecular and Cell Biology at the University of Cape Town and moved to the UK in 2021. He previously worked at Leica Biosystems and at Newcastle University's Fibrosis Research Group.

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Research Impact: Advances in Childhood Solid Tumour Research

Circulating Tumour DNA as a Biomarker in Neuroblastoma - Prof. Deb Tweddle

VIVO Biobank-supported research has demonstrated a new, non-invasive way to monitor neuroblastoma in children: [Detection of Targetable Genetic Abnormalities in Neuroblastoma Circulating Tumour DNA](#)

Q: What did this study discover?

This study showed that a simple blood test can detect important genetic changes in **neuroblastoma**, a childhood cancer of the sympathetic nervous system that mainly affects children under five. Instead of using a traditional tumour biopsy, the researchers analysed **circulating tumour DNA (ctDNA)**, which is made up of tiny fragments of cancer DNA found in the bloodstream. They tested 32 plasma samples provided by VIVO Biobank. The blood test identified cancer-driving genetic changes in several children, including the main mutations usually found in tumour biopsies. Importantly, some mutations were found only in the blood and were not seen in the original tumour sample.

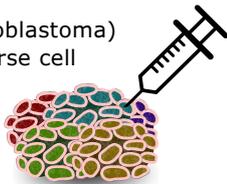
Q: Why is this important?

Children with neuroblastoma often need invasive biopsies to diagnose their cancer and guide treatment. These procedures can be stressful, physically demanding, and carry medical risks. A blood test could provide the same essential genetic information in a safer and less distressing way. Biopsies also only sample one part of a tumour. This means important mutations, especially small or newly emerging ones linked to more aggressive disease, can be missed.

Tumour Heterogeneity: Biopsy vs Blood Testing

A biopsy samples a single part of the tumour

Tumours (such as neuroblastoma) contain genetically diverse cell populations



Biopsy findings may miss mutations present elsewhere in the tumour

Tumour releases DNA into the bloodstream

A blood test captures DNA from across the whole tumour

Blood contains DNA from multiple tumour regions, revealing hidden mutations

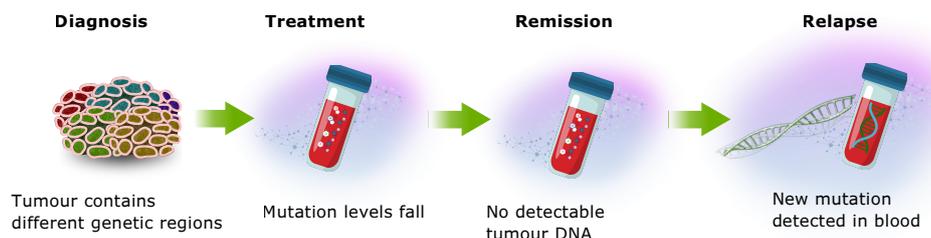


Q: What makes this blood test different?

Circulating tumour DNA comes from multiple tumour sites in the body, including areas where the cancer has spread. It also changes quickly over time.

In this study, the blood test detected new mutations in key neuroblastoma driver genes that were not present in the original biopsy samples but later appeared when the cancer relapsed. This shows the test can capture both differences between tumour sites and changes that happen over time.

Blood tests can detect changes as the cancer evolves



Q: How could this help children in the future?

This approach could allow doctors to:

- Monitor tumours over time without repeated surgeries
- Detect relapse earlier
- Track how well treatment is working
- Identify new genetic targets for therapy

In the future, ctDNA testing could reduce the need for repeated invasive biopsies, particularly in very young children. By providing real-time genetic information from a simple blood test, doctors may be able to adjust treatment earlier and more precisely. Overall, this could lead to faster, safer and more personalised care, improving outcomes while avoiding unnecessary procedures.

Blood testing can reveal mutations missed in the original tumour sample

Tumour Biopsy Report

ALK Mutation 1

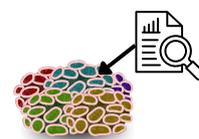
Based on one tumour samples

Blood Test Report

ALK Mutation 1

ALK Mutation 2

Additional genetic change



Tumour at diagnosis



Blood test revealed mutations not seen in the biopsy

Tumour at relapse

Collection of NHS numbers

We are now able to link **WGS** results from **Genomics England** with VIVO Biobank samples.

This is done by linking through NHS numbers so we would really appreciate your help in making sure we have all the NHS numbers. Being able to link WGS data to VIVO samples is really helpful for our researchers and will hopefully lead to more improvements in treatment.



We will also be contacting you to ask for help with any missing NHS numbers.

Certificates of Acknowledgement

Age-appropriate certificates are now available to recognise children and teenagers who donate samples to the VIVO Biobank.

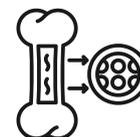
These certificates offer a simple but meaningful way to thank participants for their generosity and contribution. Please complete the participant's name, sign the certificate, and provide it to patients at your discretion where you feel it is appropriate following donation.

Centres will receive certificates with **recruitment packs** as they are requested. In the meantime, you may print them locally if convenient.



REMINDERS

Diagnosis Bone Marrow for ALLTogether trial



Please make a special effort to send diagnosis bone marrow samples for the **ALLTogether trial**. We are doing very well with trial recruitment but we are not performing well on the proportion of patients with a diagnosis bone marrow sample compared with other European countries.

Registration Forms, Documentation



Please ensure the **PDF Registration Forms** are completed **electronically** and sent to the VIVO Biobank team as soon as possible. Updating the **shipping manifest** at the same time may be helpful, particularly when arranging regular sample transfers from the sites to VIVO Biobank.

SOLID TUMOUR CLINICAL TRIALS



Solid tumour clinical trials (**FaR-RMS, HRNBL-2, BEACON-2**: are currently active, **VIVO-collaborative** Trials). Please follow the specific Trial Protocol for timepoints, collection tubes, and handling procedures



Please do not forget to co-consent the patients to VIVO biobanking along Trial participation.



Please do not use **Streck tubes** when collecting samples for patients enrolled in the **FaR-RMS** or **BEACON-2** trial. For **HRNBL-2**, the use of Streck tubes for blood collection at diagnosis is currently under consideration; further guidance will follow.



Please check the **expiry dates of PAXgene tubes** carefully (1 - year shelf life). Avoid over-ordering PAXgene tubes - replacement stock can be delivered within a few days.



rEECur Trial – not currently open for VIVO biobanking. Any samples collected as part of the Trial should be transferred to Leeds for central storage and subsequent analysis.

Please contact the Trial Coordination Team (reecur@trials.bham.ac.uk) for further guidance.

PPIE-Led Biobanking Information Video



Our PPIE group is currently co-producing a biobanking information video to support clinical teams during the recruitment and consent process.

Developed with **patients and parents of children and young people affected by cancer**, the video will explain participation and address common questions. It is designed to support informed decision-making at the point of consent.

✔ **Trial liquid biopsies and all tissue samples:**
Please process and store locally at -80°C or at Pathology Services. VIVO Biobank will coordinate regular shipments.



✔ **Non-trial liquid samples and leukaemia samples:**
Please send directly to UK Biocentre for processing. From 2026 onwards, VIVO Biobank uses new, pre-stamped **Safeboxes** (white cardboard with inserts)



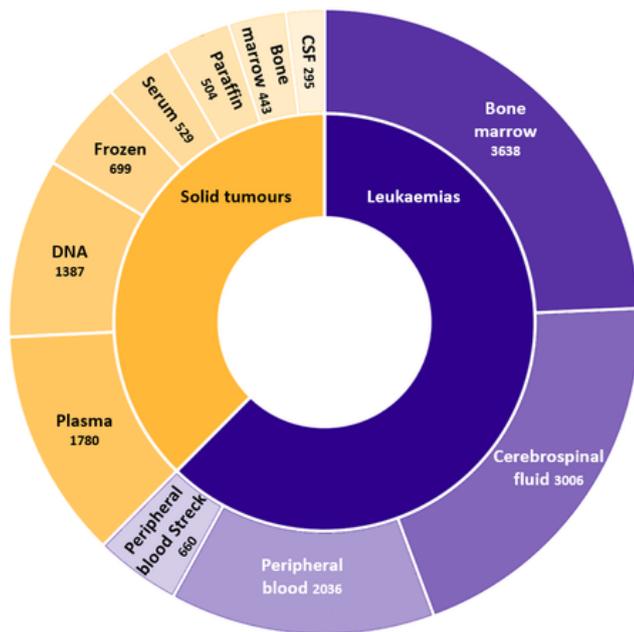
✔ Please refrain from accumulating excessive numbers of Safeboxes.

✔ Please DO NOT transfer any samples to the Headquarters (Herschel building) of VIVO Biobank, the samples bound to Newcastle should travel to the **Central Biobank Facility of Newcastle University.**



Our Latest banking Figures

Since July 2022, VIVO Biobank has continued to grow as a national resource for childhood cancer research, with thousands of samples collected and stored to support ongoing and future studies.



Samples collected by VIVO Biobank from July 2022 to December 2025

The chart shows the range of samples donated during this period, divided into solid tumours and leukaemia, and the different types of material collected, including frozen tissue, blood and cerebrospinal fluid, each playing an important role in advancing research.

Every sample reflects a family's willingness to contribute to impactful research, and we are grateful for the trust placed in the biobank.

Join us at the upcoming CCLG Annual Conference

This March, the VIVO Biobank team will be attending the CCLG Annual Conference to highlight how donated tissue and liquid biopsies continue to drive research in childhood and young people's cancers.



The Children & Young People's Cancer Association

Monday 16 March: Research session

From Sample to Breakthrough: 30 Years of Biobanking Transforming CYP Cancer Research.

10.50 am – 12.00 pm, Auditorium
Sharing how three decades of donated samples have supported major research advances

Biobanking Workshop for clinical professionals

12.15 – 1.00 pm, Breakout room

Include demonstrations and interactive discussions, providing an opportunity to share experiences and learn from colleagues across centres. An electronic **Certificate of Attendance** will be issued following the workshop.

We look forward to seeing you in Manchester!