



July-Aug 2025

Newsletter

Issue 40



Dr Tracey Bradshaw, Associate Professor in the School of Pharmacy, Faculty of Science, received a NBCRC Pilot Grant in 2020. Her research focus was on "Investigating in vivo efficacy of apoferritin-encapsulated antitumour benzothiazole 5F203 against human-derived breast cancer xenografts.". Tracey tested a new drug delivery system to improve treatment of luminal breast cancer tumours, using models to mirror human breast cancer. The new treatment was very well-tolerated with no concerning side effects, paving the way for future studies. You can find out more and read the latest research update from Tracey here: https://bit.ly/2020-pilot-grant



NBCRC Pilot Grant Awards 2025

We are excited to announce that **The Jane Tomlinson Appeal** have agreed to provide £15,000 each year for the next 3 years, sponsoring an NBCRC pilot grant each time. This year they have chosen to support the award made to Dr Sarah Storr – further details below with more details to follow in future newsletters. Due to this extended level of support, we are now in a position to offer a third Pilot Grant for 2025. Dr Andrew Green has been awarded a pilot grant for this year.



His research will focus on 'The role of ferroptosis in luminal breast cancer' and will examine ferroptosis-related proteins in invasive luminal breast cancer to identify new therapeutic targets. The research team will analyse nearly 3,000 breast cancer patient tissue samples using specialised visualisation techniques to correlate protein expression with tumour aggressiveness, immune response, and patient outcomes. Laboratory experiments will also manipulate ferroptosis genes in cancer cells to assess effects on growth and spread. The research will address an urgent clinical need for patients with aggressive luminal breast cancer who experience recurrence or treatment resistance, potentially offering new therapeutic strategies through exploiting this programmed cell death pathway.

You can find out more about Dr Green's research here.

NBCRC Pilot Grant Awards 2024

Dr Cinzia Allegrucci was awarded a pilot grant in 2024 for her groundbreaking research project focused on "Overcoming secondary breast cancer with combination epigenetic therapy." This innovative study represents a significant step forward in the fight against drug-resistant breast cancer.

Dr Allegrucci's research centers on developing novel approaches to combat resistant ER+ breast cancer. Her primary aim is to test new drugs that can both prevent and treat resistant forms of the disease. The study focuses specifically on epigenetic inhibitors that target histone demethylase proteins, with the innovative approach of combining these treatments with existing therapies such as endocrine therapy and CDK inhibitors. The ultimate goal of this comprehensive research is to prevent cancer from spreading and returning, addressing one of the most challenging aspects of breast cancer treatment.

The research team has, at the 6-month mark, achieved excellent progress, successfully gathering all the cancer cell samples required for the study. These samples include two distinct types of breast cancer cells that have developed resistance to crucial treatments, specifically Fulvestrant (a hormone therapy) and two important CDK inhibitors called Palbociclib and Ribociclib, which help prevent cancer cells from dividing. The team has begun testing two experimental treatments on one type of these resistant cancer cells, examining both treatment-responsive "wild type" cells and those that had developed resistance to either Fulvestrant or Ribociclib, seeing promising results.





Professor Alan McIntyre's 2024 pilot grant is developing breakthrough imaging techniques to better understand and treat triple-negative breast cancer (TNBC) that has spread to the brain. This aggressive cancer type currently has the poorest survival rates, making his research critical for improving patient outcomes.

The team is working to create new imaging methods that will give doctors unprecedented detail about brain tumours. By understanding how oxygen levels and tissue acidity prevent current treatments from working effectively, they aim to develop more targeted therapies for patients facing this challenging diagnosis.

At 6-months into the 12-month project significant progress has already been made, perfecting the new laboratory techniques, to allow cancer cell behaviour in patient brain tissue to be examined. The team can now create detailed maps showing chemical activity across different tumour regions, identifying areas with low oxygen or high acidity - both important factors in regulating cancer growth and spread. The research infrastructure is now in place, with systems established for properly collecting and storing fresh brain tissue samples from TNBC patients.

All laboratory methods have been tested and refined, positioning the team to work with precious patient samples. The project faced some initial delays as the specialised MRI scanner required upgrades, pushing the timeline back slightly. However, the clinical trial examining brain scans in patients with metastatic triple-negative breast cancer is now operational and actively recruiting volunteers.







During the summer, our NBCRC members and PhD students had a lunchtime break and picnic to enjoy some of the sunshine, led by Mercedes and Aisha.

Thank you to everyone who attended, and we hope to see you all at future NBCRC events.

Fundraising Success





As mentioned above, we are delighted to announce that the Jane Tomlinson Appeal - Run for all, has committed to supporting NBCRC with a grant of £15,000 each year for three years. This financial support will ensure NBCRC's Pilot Grants will continue to support innovative breast cancer research initatives here in Nottingham. This year the Jane Tomlinson Appeal will be supporting Dr Sarah Storr's project, focusing on 'The use of advanced 3D models to understand bone colonising breast cancer.'

We would like to say a massive well done to Nadine and Jordan for taking part in the London to Paris fundraising bike ride for NBCRC, in memory of their mum Suzanne. Together they raised an incredible £3,148 for the centre. Thank you so much for your hard work and support.

Earlier in the year we received a generous donation of £96,051 from The Templeton Emerging Markets Investment Trust Plc (TEMIT) and Trustees to purchase some crucial new research equipment, to aid a broad range of laboratory research projects in NBCRC (a Hidex Sense multiwell plate reader and a ViCell Blu cell analyser). All the equipment has now been delivered and installed, and is being actively used by various research teams, to aid their Breast Cancer research projects. Professor Stewart Martin, recipient of the award, said 'we cannot thank TEMIT and trustees enough – their tremendous generosity is already making a difference to our breast cancer research efforts, allowing us to conduct new areas of research whilst ensuring that we increase the speed of data generation, and that accuracy is improved.

We also have some breaking news, that will be followed up in subsequent newsletters – having received an unexpected donation NBCRC is running it's first PhD studentship (£170,000) to fund a novel research project whilst training the next generation of breast cancer researcher. We are halfway through the evaluation process and would like to thank initial reviewers and our patient & supporter group for their input. We received fantastic interest from the academic community with amazing project applications submitted – watch this space for future news once the project and new student have been matched.





Awareness and Advocacy

Courageous Conversations is a powerful series featuring candid discussions with women from the NBCRC Patient Support Group who have personally experienced breast cancer. These intimate conversations provide insight, inspiration, and authentic perspectives on the breast cancer journey.



- How has your cancer journey reshaped your family bonds and community connections?
- <u>Caring for the Caregivers: How can we better support the loved ones walking this cancer journey with us?</u>
- Navigating the return to work after breast cancer.
- Body image, self love and acceptance after breast cancer.









Robin Hood Half Marathon 2025

Meet our 2025 runners, Sarah, Cat, Katy, Emily, Samuel, Bethan, Jake, Katie, Jenna, Evie, Oscar, Lottie, Joseph, Rachel, Cerys, Iris, Isabelle, Samuel, Ben, Zoe, Sophie, Samuel, Sharon and . You can scan their QR codes and support their fundraising race.











We are still looking for more volunteers to take part in Nottingham's annual Robin Hood Half Marathon on Sunday 28th September 2025. Last year's team raised £3,720 – let's see if we can meet, or beat it!

You can then create your own <u>Just Giving page</u> on the NBCRC website.

You will receive a FREE running vest and personalised poster to share with friends and family across social media. Please get in touch with Faylisha by email at nbcrc@nottingham.ac.uk if you are interested in fundraising for the centre or would like any more information.

NBCRC Branded Gifts

We have a number of branded items such as golf umbrellas, tote bags, pens and mugs. If you would like to purchase any please get in touch with us.

NBCRC Tours

If you would like to have a look around our research facilities, meet some of our researchers and hear about the wonderful research that you are helping to make possible please contact us, we would love to show you around!

How to Give

You can help support vital breast cancer research. Making a gift is easy, you can donate once or set up a regular direct debit.

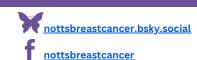
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