Run by and for GIST patients and supporters

RESEARCH

National GIST Biobank - collecting, storing and releasing samples of common GIST types for use by researchers.

gist cancer uk

Registered Charity No: 1215266

Developing new models of GIST to support understanding and further research

Prof Alan McIntyre (University of Nottingham) in partnership with Sarcoma UK

Working with the PAWS-GIST patient group and the National GIST Tissue Bank, scientists in Nottingham have successfully grown 12 new GIST cell cultures, including seven from PAWS-GIST patients. The team will now validate these—and additional PAWS-GIST models—to confirm they accurately reflect the original tumours, using techniques such as DNA sequencing. Once validated, the cell lines will be frozen, stored, and shared with the wider research community. The researchers will also test existing and experimental drugs, including those used in other cancers, to identify treatments that could potentially be repurposed for people with PAWS-GIST.

Development of Natural Killer cell immunotherapy for Gastrointestinal Stromal Tumours (GIST)

Dr. Matthew Blunt (University of Southampton) in partnership with Sarcoma UK

This research explores immunotherapy—a treatment that helps the body's own immune system fight cancer. The team is focusing on CAR-NK cell therapy, which equips natural killer (NK) cells with special receptors to recognise and destroy cancer cells. By identifying molecules on the surface of GIST cells, the researchers aim to develop and test the first-ever CAR-NK therapy designed specifically for GIST, using technology already proven in other cancers. They will also test existing immunotherapy drugs, including monalizumab, to see whether they can activate NK cells to kill GIST cells in the lab.

Adapting a digital support programme for people living with and beyond sarcoma (Finding My Way-UK-Sarcoma)

Prof Nick Hulbert Williams (Edge Hill University) in partnership with Sarcoma UK

In this project, the team will give healthcare professionals who support people with sarcoma access to the Finding My Way UK website. The healthcare professionals will review the content and give feedback to help the team understand how it should be improved for people with sarcomas including GIST. A separate study underway will also get feedback from interviews with people with GIST. These sets of feedback will be combined to help guide the changes to the programme. The team will update and tailor the programme so that it speaks directly to the emotional and mental health needs of people affected by sarcoma.

Computational analysis of the tumour microenvironment of sarcomas of unmet clinical need for the identification of novel therapeutic strategies

Dr. Dean Bryant (University of Southampton) in partnership with Sarcoma UK

Building on a previous Sarcoma UK research grant, the project team is using pioneering technologies to study the tumour microenvironment in unprecedented detail. They will identify which normal, non-cancer cells are present and how they communicate with cancer cells. This type of data analysis is hugely complex, but the team at the University of Southampton brings together experts in computer science and biology, alongside access to one of the most powerful supercomputers in the world. The project will also train a PhD student to become an expert in this field. By understanding the tumour microenvironment in GIST, the team hopes to predict which patients are likely to respond well to specific treatments - enabling those who may do worse to be offered alternative options.