



# Research Collaboration

**GIST Cancer UK + Sarcoma UK are proud to jointly commit £140,000 to support this cutting-edge research project led by Dr Olivier Giger at the University of Cambridge**

## Lay Summary

### The challenge

Gastrointestinal stromal tumours (GISTs) are the most common type of sarcoma. About one in 15 people with GIST, generally children and young adults, have a type of GIST known, known as SDH-deficient GISTs. These are particularly challenging to treat with drugs, meaning the only effective treatment for these patients is surgery.

### How will this project tackle this challenge?

A specialised group of enzymes, known as RNA modifying enzymes, are involved in ensuring our cells function properly. According to previous research carried out by Dr Giger's team, people with SDH-deficient GIST have faulty RNA modifying enzymes. This can cause tumours to form, causing the harmful outcomes of GIST.

However, faulty RNA modifying enzymes can be blocked with novel drugs known as 'epi-drugs', which have been promising for treating other cancers such as leukaemia. Dr Giger's team hope they can utilise this science for treating GIST patients.

To get there, the team will use cutting edge laboratory techniques to better understand the genetic changes specific to SDH-deficient GIST patients. They also aim to confirm how this affects their RNA modifying enzymes.

### How will this project help people affected by GIST?

Understanding important genes is key to unlocking new treatment targets, and we have already seen how this approach can create other drugs for GIST, such as imatinib. By understanding the genetic changes in SDH-deficient GIST patients, this brings us one step closer to vital new treatment options.