How DNA from 100-year-old tumor could bolster treatment of rare childhood cancers

Deep in the basement archives of London's Great Ormond Street Hospital for Children reside the patient records that cancer researcher Sam Behjati hopes will put the hospital's past to work for the future. On 2 May, he and his colleagues published the result: DNA sequences from the genomes of three childhood tumour samples collected at the facility almost a century ago.

At the Wellcome Trust Sanger Institute in Hinxton, UK, [Behjati] tracks the genomic miswiring that can lead to rare childhood cancers. And as someone who also treats patients, he has been frustrated by the paucity of evidence backing up much of his practice.

"The treatment regimens for children with rare cancers are essentially made up," Behjati says. "If you've got three or four patients nationally, how are you ever going to conduct a reasonable clinical trial?"

To expand the pool of samples that he could sequence, he decided in 2014 to harness advances in genome sequencing that had already made it possible to sequence DNA from pathology samples a few decades old. The hospital's 165-year archive of samples and patient records provided the opportunity to see how far back in time he could go.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: Century-old tumours offer rare cancer clues