



QIAGEN – NCCS Collaboration

Next-generation sequencing (NGS) has proven to be a powerful tool in clinical cancer research, by enabling the sequencing of critical cancer genes, providing insights into variants involved in carcinogenesis and helping to gain understanding of tumorigenic mechanisms, cancer evolution and responses to therapeutic agents. However, laboratories typically find it difficult to implement the inherently complex workflow.

The NCCS integrated genomics platform (IGP) was recently inaugurated at the ACP Oncology meeting. This unique platform possesses the expertise of performing NGS work using FFPE tissues. These tissues represent an extensive repository of tissue material with a long-term clinical follow-up providing a valuable resource for translational clinical research. IGP works extensively with various local institutions providing a one-stop solution for NGS i.e. WES, WGS, targeted re-sequencing, tissue DNA/ RNA extraction, Nanostring profiling. IGP is also coming online with single cell isolation workflows harnessing the strength of Fluidigm's C1 microfluidics technology with downstream in-house optimized prep for NGS. IGP has adopted Qiagen as one of its close working industrial partner for implementation of Qiagen's off the counter NGS panel services to the research communities with their proven state-of-art technologies.

QIAGEN recently launched the GeneReader NGS System, the industry's first true NGS Sample to Insight workflow solution. The GeneReader system offers a streamlined workflow and one trusted partner, to generate actionable insights. The workflow comprises integrated instrumentation for nuclei acid extraction, target enrichment, library preparation, clonal amplification and next-generation sequencing, as well as bioinformatics software for the generation of clinical reports.

As Singapore's only comprehensive cancer center, a joint collaboration was established between NCCS & QIAGEN, acknowledging QIAGEN's gracious investments with the high-end instrumentations and technical expertise, while engaging in NCCS vibrant research with the adoption of the NGS workflow through working with scientist & clinician scientists. Through this QIAGEN-NCCS collaboration, we aim to provide improvements to clinical cancer research, by facilitating NGS adoption for cancer diagnostic, and ultimately to provide the best cancer care for the patients.