

Fluivia

Developing ctDNA analytics to improve precision healthcare in oncology

Genomic profiling and personalized treatment hold great promise in improving cancer care in the precision medicine era. Modern molecular therapies often come with a high price tag and thus it is essential that clinicians can properly identify patients who will benefit from the treatment.

As standard practice relies on characterization of solid tissue biopsies, the genomic analysis of cancer has often been restricted in terms of data acquisition and applicability. This is due to the fact that tissue biopsies are difficult and, in some cases, impossible to collect and even when successfully collected can miss tumor clones relevant for treatment.

To solve the above-mentioned challenges, we have developed a blood based gene test for cancer diagnostics. We plan to offer comprehensive genomic testing based on circulating tumor DNA (ctDNA) analysis for healthcare, academia and pharmaceutical companies.

B.Sc. Emma Kaijanen is molecular biology major with high motivation and drive to build entrepreneur career. Emma has unique combination of skills and experience from biotech and business side that makes her an idea person to lead the commercialization effort.

Prof. Matti Nykter is the leader of the computational biology group at Tampere University and he has prior experience and success in commercialization of academic research.

PhD Heini Kallio has long experience in experimental cancer research and she is an expert in developing experimental high throughput assays for cancer diagnostics.

M.Sc. Matti Annala is our ctDNA computational analysis expert and has developed computational tools and analysis pipelined used in this project.

B.Sc. Juuso Vuorinen is molecular biology major and his experience in long-read sequencing is essential for the development of novel ctDNA sequencing techniques.

B.Sc. Julius Westerholm is industry management major and hired to the project to bring more financial and operations management know-how.

SPARK VALUE: We hope to gain vital commercialization know-how from experienced SPARK mentors, broaden our networks and expand them internationally, and learn from our peer SPARKees and similar projects from earlier patches. SPARK is a unique opportunity to develop our business skills to match the competitive landscape of the life science industry.