SciLifeLab

rarity BIOSCIENCE

SciLifeLab industry users: >100 yearly

SciLifeLab user case:
Industry

Diagnostics

SuperRCA technique for future precision medicine

Rarity Bioscience and SciLifeLab are collaborating to advance superRCA, a powerful tool for nucleic acid detection. The technique, previously a Technology Development Project at SciLifeLab, has great potential to enhance precision in identifying cancer mutations.

> *With its extreme sensitivity, superRCA can detect rare mutated DNA molecules in a sample. One of its applications is in detecting relapse or persistence of leukemic disease. It allows us to detect the presence of diseased or mutated cells among a large pool of healthy cells, with high precision," says Linus Bosaeus, CEO of Rarity Bioscience.*

SuperRCA is not only a powerful analytic tool but it is also cheap and efficient and it utilizes flow cytometers, a standard technology in today's clinical hematology labs.

Using expertise and equipment available at SciLifeLab Clinical Genomics, Rarity Bioscience can retrospectively test superRCA, a crucial step in its development. Rarity is currently conducting a continuation study in collaboration with SciLifeLab, Uppsala University, and Karolinska Institutet in the field of hematology, specifically acute myeloid leukemia (AML) and myelodysplastic syndrome (MDS). The superRCA technique is being tested by SciLifeLab for usability, evaluating how end users can adopt the technology.

Curious to learn more? Access full case text through the QR code!

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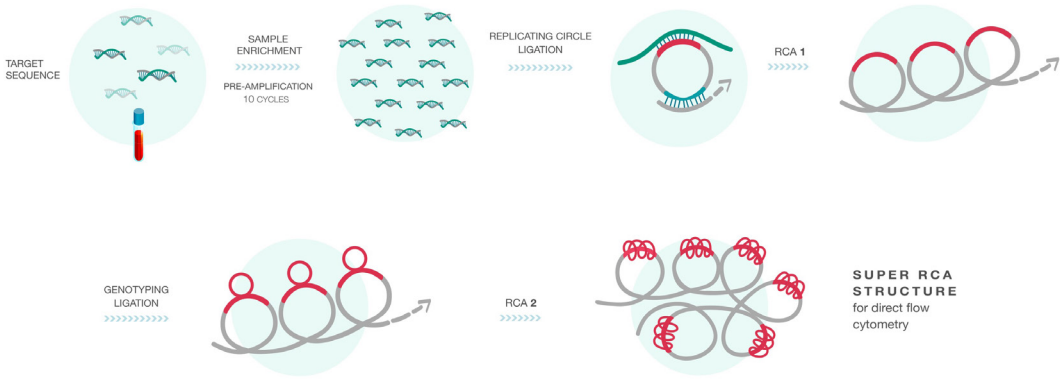

The different steps of the superRCA technology.

SciLifeLab infrastructure related to the case

"SuperRCA enables identification of various genetic aberrations in patients, many of which are specific to each patient. The objective is to detect leukemic cells as early as possible to modify the treatment accordingly," says Tatjana Pandzic, clinical laboratory geneticist at the Department of Clinical Genetics at Uppsala University Hospital and leader of hematology at SciLifeLab Clinical Genomics Uppsala.

> *There are certain criteria you need to meet when it comes to the clinic, because the method has to be very robust, user-friendly, have minimal turnaround times, and be cost-efficient, which is something SciLifeLab can evaluate since we work in hospital labs and have in-house expertise in hematology," says Malin Melin, Head of Unit at Clinical Genomics Uppsala.*

Clinical Genomics Uppsala

Clinical Genomics Uppsala is jointly set up by Uppsala University, Uppsala University Hospital and SciLifeLab with the aim to catalyze the transition of novel research findings into molecular diagnostics for clinical use. The unit is operating within the Uppsala University Hospital laboratories and has extensive experience in development and implementation of state-of-the-art genomics methods for diagnostics.

Services

Clinical Genomics Uppsala provides services within next generation sequencing (NGS) and other molecular technologies. We offer fully tailored support for clinical and translational research projects.

- Support with project design
- Tissue processing of solid tumors
- Quality control of samples prior to analysis
- Sequencing library preparation
- NGS and other molecular technologies
- Bioinformatics support
- Clinical interpretation of variants

Get in touch!
scilifelab.se/units/clinical-genomics-uppsala

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