

## Roche announces new collaboration with Broad Clinical Labs to accelerate adoption of cutting-edge SBX sequencing technology

- **The strategic collaboration with Broad Clinical Labs will explore and develop applications using Roche's SBX sequencing technology<sup>1</sup>, with an initial focus on critically ill newborns and their parents.**
- **Whole genome sequencing can help diagnose babies with suspected genetic disorders, such as cystic fibrosis and sickle cell disease.**
- **This project will explore how this technology could become part of routine clinical practice for newborns, as well as its use in other research applications.**

Basel, 23 May 2025 – Roche (SIX: RO, ROG; OTCQX: RHHBY) announced today a strategic collaboration with Broad Clinical Labs to develop and pilot groundbreaking applications using Roche's recently unveiled next-generation sequencing (NGS) Sequencing By Expansion (SBX) technology. This collaboration will focus on harnessing the power of the SBX technology to transform clinical genomics and biomedical discovery. It will also aim to establish the SBX technology as a routine offering for fast, scalable sequencing for Broad Clinical Lab's research community.

The first project will see Broad Clinical Labs using the SBX technology to advance research into trio-based whole genome sequencing of critically ill newborns and their biological parents. This program aims to establish a future state where whole genome sequencing becomes a routine component of clinical care in neonatal intensive care units (NICUs) – enabling precise, timely diagnoses and improved outcomes for infants with suspected genetic disorders.

“The SBX technology was designed with both clinical impact and scientific discovery in mind, and offers the next-generation of fast, scalable sequencing solutions,” said Matt Sause, CEO of Roche Diagnostics. “Collaborating with Broad Clinical Labs, a leader in clinical genomics and omics research, accelerates our ability to deliver on that promise and support better outcomes for patients through cutting-edge genomic technology.”

“Integrating the SBX technology into clinical and translational pipelines opens exciting new possibilities,” said Niall Lennon, Chair and CSO at Broad Clinical Labs. “Together with Roche, we're aiming to demonstrate how fast, scalable, and high-quality sequencing can support both routine clinical care and drive biomedical innovation.”

The SBX technology represents a significant leap forward in next-generation sequencing, offering ultra-fast turnaround times, exceptional scalability, and cost efficiency across a range of sequencing applications. The SBX technology has been tailored to deliver high-

throughput performance with a flexible workflow that will support rapid deployment in time-sensitive settings like neonatal intensive care units (NICUs) and comprehensive multi-omic discovery research.

The collaboration will also explore the capabilities of the SBX technology for RNA sequencing, including both bulk and single-cell approaches. These efforts will focus on leveraging the longer reads of the SBX technology to unlock novel molecular insights and data types that could reshape how researchers understand disease mechanisms and identify new therapeutic targets. Broad Clinical Labs is a wholly owned subsidiary of the Broad Institute of MIT and Harvard. Broad Institute researchers, who have led the field in the development and application of single cell methods across a range of biomedical areas, will be the early users to leverage the new system.

The collaboration between Roche and Broad Clinical Labs reflects a shared vision of a genomics-enabled healthcare system and reinforces both organizations' commitment to advancing precision medicine at scale.

#### **About Sequencing by Expansion (SBX) technology**

Roche's groundbreaking next-generation sequencing technology is designed to overcome the limitations of traditional sequencing methods. As well as high accuracy, it also offers an unparalleled combination of flexibility and speed, making it a versatile tool for a wide range of genomic applications.

One of the key benefits of the SBX technology is its scalability. The chemistry is coupled with an advanced, high-throughput CMOS sensor module that enables ultra-rapid, real-time base calls and analysis. This module is designed to process numerous samples simultaneously, creating a highly scalable and flexible architecture for cost-efficient sequencing across different project sizes, from small-scale studies to large projects involving thousands of samples.

This versatility makes the SBX technology suitable for a variety of applications, including whole genome sequencing, whole exome sequencing, and RNA sequencing. As a result, it holds promise not only for research laboratories but also eventually for clinical settings where detailed genomic insights are crucial. With SBX technology, researchers can meet new and evolving research demands efficiently, paving the way for significant advances in our understanding of genetics and disease, ultimately contributing to better healthcare outcomes.

The SBX chemistry was invented by Mark Kokoris and Robert McRuer who co-founded Stratos Genomics. Stratos Genomics was acquired by Roche in 2020. To find out more about Roche's novel SBX technology, click [here](#).

### About Broad Clinical Labs

Broad Clinical Laboratories was founded in 2013 as a subsidiary of Broad Institute, Inc. to accelerate the world toward a better understanding, diagnosis, and treatment of disease by pursuing projects, developing products, and driving adoption of cutting edge -omics technologies and novel molecular assays. Broad Clinical Labs is a leader in human whole genome sequencing, having sequenced over 750,000 genomes in service of its mission to accelerate the understanding and diagnosis of human disease. For more information, please visit [www.broadclinallabs.org](http://www.broadclinallabs.org)

### About Roche

Founded in 1896 in Basel, Switzerland, as one of the first industrial manufacturers of branded medicines, Roche has grown into the world's largest biotechnology company and the global leader in in-vitro diagnostics. The company pursues scientific excellence to discover and develop medicines and diagnostics for improving and saving the lives of people around the world. We are a pioneer in personalised healthcare and want to further transform how healthcare is delivered to have an even greater impact. To provide the best care for each person we partner with many stakeholders and combine our strengths in Diagnostics and Pharma with data insights from the clinical practice.

For over 125 years, sustainability has been an integral part of Roche's business. As a science-driven company, our greatest contribution to society is developing innovative medicines and diagnostics that help people live healthier lives. Roche is committed to the Science Based Targets initiative and the Sustainable Markets Initiative to achieve net zero by 2045.

Genentech, in the United States, is a wholly owned member of the Roche Group. Roche is the majority shareholder in Chugai Pharmaceutical, Japan.

For more information, please visit [www.roche.com](http://www.roche.com).

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### References

[1] The SBX technology is in development and not commercially available. The content of this material reflects current study results or design goals.

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