

10x Genomics

Adding a new dimension to in vitro research: single cell and spatial solutions for organoids

by Clara Hayn (University of Bonn) and Sara Milosevic (10x Genomics)

Organoids are reshaping how we research developmental biology, model disease, determine drug interactions in vitro, and more. Capturing the molecular underpinnings of these phenomena requires characterizing gene expression profiles, transcriptional profiles, and epigenomic phenomena. However, the cellular heterogeneity of organoids means bulk sequencing approaches fail to capture the whole story.

Join us to discover how Chromium Single Cell and Xenium In Situ technologies can help you add a new dimension to your organoid research. Explore how these tools and technologies can help you to identify novel cell subtypes, obtain new insights into development, and uncover the cellular basis of transcriptomic and epigenetic changes in health and disease.

In this workshop, you will learn:

With 10x Genomics powering the most cutting-edge research in the field, this webinar will offer exclusive insights into how these technologies are revolutionizing organoid research.

Sara Milosevic will give a comprehensive presentation on the history of organoid research, detailing significant milestones and advancements in the field. She will delve into specific applications of organoids in studying glioblastoma, an aggressive type of brain cancer, and retinoschisis, a genetic eye disorder affecting the retina. Additionally, Sara will highlight various 10x products and their capabilities in enhancing and facilitating complex organoid research, demonstrating how these tools contribute to deeper understanding and innovative solutions in biomedical studies related to these conditions.

Clara Hayn will give a presentation on the relevance of spatial transcriptomics at single-cell to subcellular resolution for assessing in vitro neurodevelopment using brain organoids. She will present initial data obtained from the organoids via the Xenium analyzer using the 5K Prime panel.