



Akoya Biosciences to Present First-of-its-Kind Spatial Multiomics Dataset at 2023 AGBT General Meeting

February 1, 2023

Simultaneous detection of proteins and RNA markers across 23 different tissue samples demonstrate robust and scalable capabilities of company's multiomics solution

MARLBOROUGH, Mass., Feb. 01, 2023 (GLOBE NEWSWIRE) -- Akoya Biosciences, Inc. (Nasdaq: AKYA) ("Akoya"), The Spatial Biology Company®, today announced that the company will present results from a novel same-section, spatial multiomic study at the Advances in Genome Biology and Technology (AGBT) Annual Meeting being held in Hollywood, Florida from February 6-9, 2023. Leveraging the high-speed imaging platform, [PhenoCycler®-Fusion](#), company scientists to showcase how imaging both RNA and protein biomarkers simultaneously, in a single tissue section, can give a more complete picture of tumor biology.

Protein and RNA biomarkers play complementary roles in defining cell phenotypes and cell states, respectively, in a tissue sample. Proteins are the key effectors of cell function and detecting cell surface protein markers can serve as a ground truth for cell identity. RNA markers such as cytokines and chemokines can provide an insight into signaling pathways that result in changes in cell states, arising from interactions within the tumor microenvironment. Measuring both analytes within the same tissue can give researchers an accurate picture of tumor progression and response to therapy.

First unveiled at the AGBT Annual Meeting in 2022, the company's RNA chemistry was combined with the company's industry-leading proteomics offering in a novel multiomic study featuring 46 samples, 23 tissue types and simultaneous detection of RNA and protein biomarkers from each section. The ability to scale the chemistry across multiple samples and a diversity of tissue types is a key requirement for discovering robust biomarker signatures.

The study was conducted on the [PhenoCycler-Fusion System](#) which enables rapid imaging of whole slides at single-cell resolution. In addition to the speed of imaging, the system has a proprietary file compression algorithm that can reduce file sizes from terabytes to gigabytes. This powerful combination makes it easier for researchers to scale up their studies with higher weekly throughput, while reducing data storage costs.

This new dataset will be presented at Akoya's opening in-suite talk. Details below. To register, click [here](#).

In Suite Talk: True Spatial Multiomics: One section, Two analytes

Date: Tuesday, February 7, 10:30 – 11:00 am ET

Speakers: Niro Ramachandran, Ph.D., Chief Business Officer, Akoya Biosciences and Julia Kennedy-Darling, Ph.D., VP Innovation, Akoya Biosciences

Venue: Exhibit Suite #313, Third Floor, Diplomat Hotel

"We are excited to highlight the breakthrough capabilities of our spatial transcriptomics chemistry and how a multiomic view of each sample can uncover a new dimension in tissue biology," said Brian McKelligon, Chief Executive Officer, Akoya Biosciences. "We are looking forward to sharing these datasets with the genomics community at AGBT."

Additional talks and poster presentations featuring collaborators and customers are listed by date and time below:

Poster and Flash Talk: High-speed multiomic spatial phenotyping of immunotherapy responses in head and neck cancer

Presenter: Oliver Braubach, Ph.D., Akoya Biosciences

Date and Time: Tuesday, February 7, 1:30 – 3:30 PM

Poster Number: 129

Dr. Braubach will also be presenting a Flash Talk on this poster in the Grand Ballroom on Tuesday, February 7th at 11:25 AM – 11:49 AM

Poster and Flash Talk: A multiomic spatial phenotypic atlas of triple-negative breast cancer in women of African ancestry

Presenter: Jasmine Plummer, Ph.D. Director, St. Jude Center for Spatial Omics, St. Jude Children's Research Hospital

Date and Time: Tuesday, February 7, 1:30 – 3:30 PM

Poster Number: 137

Dr. Plummer will also be presenting a Flash Talk on this poster in the Grand Ballroom on Tuesday, February 7th at 11:25 AM – 11:49 AM

Presentation: Mechanisms of metaplastic progression to adenocarcinoma revealed by high-speed multiomic spatial phenotyping of FFPE human samples

Presenter: John Hickey, Ph.D., Stanford University

Date and Time: Tuesday, February 7, 7:50 – 8:10 PM

Concurrent Session: Cancer, Grand Ballroom

Presentation: High-speed multiomic spatial phenotyping of FFPE human cohorts to dissect mechanisms of environmental-conditioned metastasis

Presenter: Julia Kennedy-Darling, Ph.D., Akoya Biosciences; presenting on behalf of Garry Nolan, Ph.D., Stanford University

Date and Time: Tuesday, February 7, 8:30 – 8:50 PM

Concurrent Session: Cancer, Grand Ballroom

Poster: Rapid whole-slide spatial analysis of FFPE tissues with true multiomic panels enables the discovery of key cellular niches

Author: Julia Kennedy-Darling, Ph.D., Akoya Biosciences

Date and Time: Wednesday, February 8, 4:45 – 6:10 PM

Poster Number: 532

About Akoya Biosciences

As The Spatial Biology Company®, Akoya Biosciences' mission is to bring context to the world of biology and human health through the power of spatial phenotyping. The company offers comprehensive single-cell imaging solutions that allow researchers to phenotype cells with spatial context and visualize how they organize and interact to influence disease progression and response to therapy. Akoya offers a full continuum of spatial phenotyping solutions to serve the diverse needs of researchers across discovery, translational and clinical research: PhenoCode™ Panels and PhenoCycler®, Phenolmager® Fusion and Phenolmager HT Instruments. To learn more about Akoya, visit www.akoyabio.com.

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