Spatial Genomics And Transcriptomics Market is projected to experience a CAGR of 17.38% throughout the forecast period

The spatial genomics and transcriptomics market is anticipated to grow at a CAGR of 17.38% during the forecast period.

NOIDA, UTTAR PARDESH, INDIA, November 28, 2023 /EINPresswire.com/ -- According to a new study published by Knowledge Sourcing Intelligence, the spatial genomics and transcriptomics market is projected to grow at a CAGR of 17.38% between 2021 and 2028.

The surge in adoption of spatial genomics and transcriptomics technologies due to their various applications such as stem cell and cancer research, tissue-specific gene expression studies, embryogenesis and in-vitro fertilization, and characterization of non-coding RNAs, among others, propel the expansion of the spatial genomics and transcriptomics market. Furthermore, the rising frequency of genetic illnesses, the use of spatial genomics and transcriptomics in determining disease and treatment indicators, and the growing preference for tailored treatments all contribute to the market's expansion.

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> *Knowledge Sourcing Intelligence*

Spatial genomics and transcriptomics are the applications of cutting-edge technology that aid in the investigation and visualization of gene expression patterns. Researchers are concentrating on delivering high-resolution spatial information on gene expression patterns, which spatial genomics and transcriptomics technology can give. These technologies are used in a wide range of applications, including illness diagnosis, biomarker identification, and pharmaceutical development. The use of spatial genomics and transcriptomics in drug discovery and development is becoming more popular. This need has extended beyond research in recent years and has been focused on medication discovery and development, particularly for illnesses like neurodegenerative disorders and cancer. The expanding potential of spatial genomic analysis as a cancer detection tool, as well as the launch of the fourth generation of sequencing,

are expected to drive growth even further.

The market is witnessing multiple collaborations and technological advancements, for instance, Curio Bioscience confirmed the commercial availability of Curio Seeker, a whole-transcriptome spatial mapping kit with a high-resolution imaging approach, in February 2023.

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Based on the product the global spatial genomics and transcriptomics market is divided into spatial transcriptomics and spatial genomics. The spatial transcriptomics segment is likely to expand at a high CAGR over the market forecast. An important segment driver is the high adoption of transcriptomic approaches for the analysis of single cells as compared to spatial genomic methods. The segment's dominance may be attributed to the availability of automated sequencing technologies to meet the increasing demand for nucleic acid sequencing of biological samples or single cells. The necessity for automated, robust, and scalable library preparation technologies has risen as the sequencing of nucleic acids from single cells or particular biological specimens has expanded. Furthermore, a better knowledge of tissue heterogeneity has led to the development of numerous novel sequencing methods targeted at inferring or conserving spatial information. This has also sped up revenue flow in this category.

Based on technology the global spatial genomics and transcriptomics market is divided into instruments, consumables, and software. Among these, the consumable category is likely to have a major market share and is anticipated to expand significantly over the forecast period. The main reason for revenue leadership is recurring consumption across numerous workflow processes, as well as a wide number of product offers from important players. In examining the spatial structure and interactions of cells within complex biological systems, spatial genomics, and transcriptomics provide distinct benefits. This enables researchers to acquire insights into the regional distribution of genes and their expression patterns, which standard genomics approaches do not provide.

Based on end use the global spatial genomics and transcriptomics market is divided into translational research, academic customers, diagnostic customers, and pharmaceutical manufacturers. Among these, the translational research category is likely to have a major market share and is anticipated to expand significantly over the forecast period. The application of spatial omics technologies in translational research has the potential to enhance research by giving a full examination of the physiology and condition of a disease, hence propelling the development of novel diagnostic tools and therapies. Furthermore, spatial genomics and transcriptomics are being employed to provide high-throughput data on the organizational structure of cell content from tissues and cell types. Given these potential advantages, important firms are engaged in the study and development of predictive and pharmacogenetic tests that aid in the early detection of essential illnesses.

Based on Geography North American region is anticipated to expand significantly, this growth is boosted by its top-tier healthcare system and the presence of industry titans. The area is positioned to continue its leading position, with future development likely fueled by increased research spending. Factors such as solid research funding, industry leaders, exceptional healthcare systems, and the rapid adoption of spatial analytic approaches will primarily fuel expansion in areas such as the United States and Canada. Moreover, North America is a prominent region in the spatial genomics market due to its strong healthcare infrastructure, widespread medication use, increasing incidence of lifestyle diseases, growing awareness of the importance of maintaining good health, and a growing amount of research activities.

As a part of the report, the major players operating in the global spatial genomics and transcriptomics market, that have been covered are Natera Inc., 10x Genomics, Dovetail Genomics, Illumina, Inc., S2 Genomics, Inc., NanoString Technologies, Inc., Seven Bridges Genomics, Horizon Discovery Group plc, Bio-Techne.

The market analytics report segments the global spatial genomics and transcriptomics market using the following criteria:

- BY PRODUCT

o Spatial Transcriptomics

- Sequencing-Based Methods
- IHC
- Microscopy-based RNA Imaging Techniques

o Spatial Genomics

- FISH
- Microscopy-based Live DNA Imaging
- Genome Perturbation Tools
- Massively-Parallel Sequencing
- Biochemical Techniques
- Others

- BY TECHNOLOGY

o Instruments
o Consumables
o Software

- BY END-USE

- Translational Research
- Academic Customers
- Diagnostic Customers
- Pharmaceutical Manufacturer

- BY GEOGRAPHY

- North America

- United States
- Canada
- Mexico

- South America

- Brazil
- Argentina
- Others

- Europe

- Germany
- France
- United Kingdom
- Spain
- Others

- Middle East and Africa

- Saudi Arabia
- UAE
- Israel
- Others

- Asia Pacific

- China
- Japan
- South Korea
- India
- Indonesia
- Thailand
- Others

Companies Profiled:

- Natera Inc.
- 10x Genomics
- Dovetail Genomics
- Illumina, Inc.
- S2 Genomics, Inc.
- NanoString Technologies, Inc.
- Seven Bridges Genomics
- Horizon Discovery Group plc
- Bio-Techne

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