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Sema4 launches new genomic testing and digital tools for use in oncology

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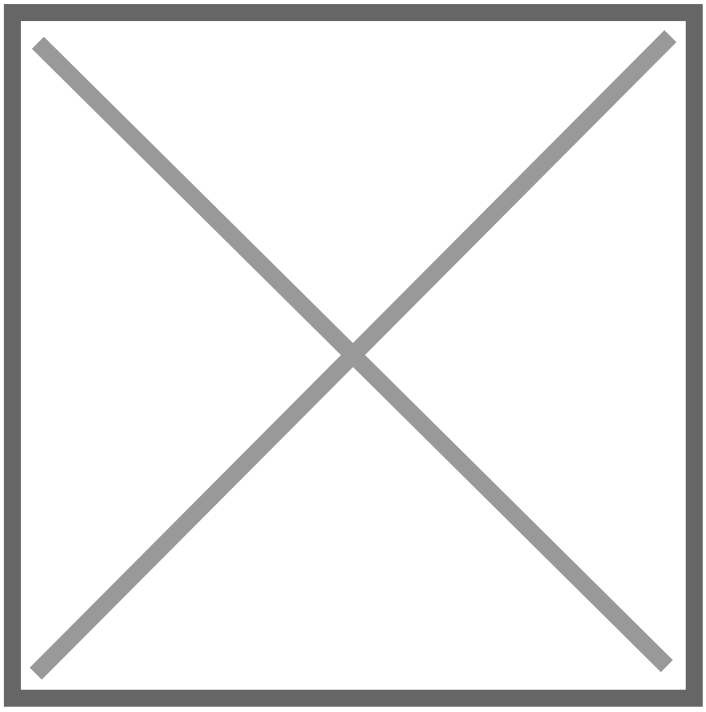

Sema4, a patient-centered health intelligence company, has announced the launch of several new genomic testing services and digital tools to help oncologists deliver on the promise of precision medicine. Together, these products provide a comprehensive approach that can be used throughout a patient's journey, from assessing risk to analyzing cancer and monitoring in remission. Demonstrations of the products will be available at Sema4's booth (#7140) at the American Society for Clinical Oncology 2019 Annual Meeting taking place in Chicago from May 31 to June 4.

Sema4's new genomic profiling solution that will soon be available for oncology includes whole exome sequencing (for tumor and normal samples) and whole transcriptome sequencing (for tumor samples only). Based on 250x tumor coverage and 100x normal coverage across all genes, with 100 million RNA reads, these services provide clinically actionable information about a broad range of genomic variants, gene fusion and alternative splicing, and tumor mutational burden and microsatellite instability. The services are designed for use with FFPE, bone marrow, blood, or saliva samples.

The new digital tools are built on Sema4's innovative Centrellis™ health intelligence platform and are currently used for research purposes. They include:

- Patient Journey — providing an interactive timeline visualization of the patient's health journey, complete with diagnoses, treatments, molecular profiles, and more
- Cohort Builder — offering the ability to define groups of patients according to specific parameters such as stage, histology, and treatments to understand treatment patterns, identify appropriate clinical trials, and enable data-driven decisions about patient care
- VONC — automated variant curation platform pulling from a wide array of databases to support curation of genetic information at scale with the most relevant clinical evidence to inform therapy decisions

Clinicians at the Mount Sinai Health System, together with Sema4, have been jointly developing and piloting these digital tools for application in oncology.

"Sema4 is helping the objectives of the Tisch Cancer Institute because it's aggregating clinical data sets on our patients. Marrying that with the genomic information and deploying it in usable tools is allowing us to have better insights about what's happening in our patient population," said Ramon Parsons, MD, PhD, Director of the Tisch Cancer Institute and Chair of the Department of Oncological Sciences at Icahn School of Medicine at Mount Sinai.

William Oh, MD, Chief of the Division of Hematology and Medical Oncology at Mount Sinai and Deputy Director of the Tisch Cancer Institute at the Icahn School of Medicine at Mount Sinai commented: "Working with a large healthcare system and as a practicing oncologist myself, the most important thing is getting this molecular data and the informatics in a timetable that allows me to continue to take care of my patients. Working with a company like Sema4 allows us to make the best decisions

for our patients to get the best possible outcomes."

According to Andrew Kaufman, MD, Vice Chairman of the Department of General Thoracic Surgery at Mount Sinai, "In healthcare, like any other industry, we're really looking for efficiency in connecting the dots of so much data. Sema4 has come up with a novel way to look at patient data that is extremely powerful. I use these tools almost like a Google search, looking up information about my patients' clinical and scientific data to give each person the best care."

Elisa Port, MD, Chief of Breast Surgery and Director of the Dubin Breast Center at Mount Sinai, commented: "Sema4 is going to have a very widespread impact on the patients we treat here because the company's tests open up the opportunity for genetic testing across a much broader base of patients and streamline and expedite the process. Sema4 helps us by quickly getting us the genetic testing information we need so we can make important clinical decisions about surgery options for each individual."

"Sema4's mission to help physicians implement precision medicine is built on our deep foundation in data science and developing genomic tests," said Eric Schadt, PhD, Founder and Chief Executive Officer of Sema4. "Our team's expertise in data mining, analysis, machine learning, and predictive modeling gives us a unique advantage in generating and making sense of information in ways that will give oncologists an edge in battling cancer, particularly when combined with advanced genomic profiling."

Sema4 is a patient-centered health intelligence company founded on the idea that more information, deeper analysis, and increased engagement will improve the diagnosis, treatment, and prevention of disease. Sema4 is dedicated to transforming healthcare by building dynamic models of human health and defining optimal, individualized health trajectories, starting in the areas of reproductive health and oncology.