Seattle Biotech and Partners Earn $3.1 Million Grant to Increase Actionable Treatment Options for Cancer Patients

National Institutes of Health funds will help commercialize test which has demonstrated providing actionable treatment options to 70% of cancer patients

SEATTLE, May 02, 2018 – SEngine Precision Medicine [senginemedicine.com], a biotech accelerating development of targeted, less toxic cancer therapeutics, received a grant to commercialize its P.A.R.I.S. test together with partners Fred Hutchinson Cancer Research Center and the Knight Cancer Institute at Oregon Health & Science University (OHSU).

Recent studies* show DNA sequencing of a patient's cancer, while informative, results in actionable treatment options with FDA approved drugs for less than 10% of patients, that's one in every 250 patients.

SEngine Precision Medicine, a Fred Hutch spinoff, developed a proprietary assay, or test, known as P.A.R.I.S. for Personalized, Aimed, Robotics, Informatics and Sequencing. Results from the P.A.R.I.S. test indicate actionable treatment options for 70% of cancer patients. P.A.R.I.S. uses robotics-based testing of hundreds of drugs and potential novel chemicals on living 3D tumors grown directly from patients' actual cancers.

"It is what allows us to search and test for treatments in plastic trays in our lab and not in patients' bodies. The goal of this grant is to make the testing broadly available to patients and the oncologists who treat them throughout the United States," says SEngine Precision Medicine Founder and CEO Dr. Grandori. "You can think of us as a search engine for treatments, hence the name SEngine. We arrived at this point only with the collaborative effort involving teams at the Fred Hutch, as well as Seattle Cancer Care Alliance oncologists, Providence Health Services, and Dr. Brian Druker at OHSU."

"Precision oncology requires treatment protocols tailored to each individual's unique disease," says Dr. Brian Druker, Director of the OHSU Knight Cancer Institute. "By utilizing data obtained directly from the patient's living 3D tumor, the P.A.R.I.S. test will allow oncologists to deliver uniquely tailored therapies to their patients."

SEngine is the first and only lab in the United States to earn Clinical Laboratory Improvement Amendments (CLIA) certification for a high throughput, high complexity test for solid tumors. The certification allows SEngine to report test results back to oncologists along with guidance tailored to the needs of the individual patient. Test results are typically delivered within three weeks of receiving a live biopsy of the patient's solid tumor.

"It's somewhat ironic," says Dr. Christopher Kemp, a cancer geneticist and pioneer of functional genomics at Fred Hutch, "that in looking for ways to destroy cancer, we first need to find ways to keep it alive. But that's what it takes to get testing out of patients' bodies and into the lab. We're delighted to be working with SEngine."

"Functional testing of patient's live cancer cells will be the needed tipping point to enable true personalized medicine." Dr. Grandori says, "The functional testing of drugs will provide clues to solve the puzzle of DNA mutations defined now as 'unknown significance' or 'not actionable.' It will finally teach computers how to cure cancer."

Find a video on the P.A.R.I.S. test here.

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*C.Pauli, et al; *Personalized In Vitro and In Vivo Cancer Models to Guide Precision Medicine*