



NANT Receives FDA Authorization for New Clinical Trials with Personalized, Next-Generation Neopeptide Cancer Vaccine

The FDA has authorized a phase 1 study for an investigational Neopeptide Yeast Vaccine, YE-NEO-001, in patients previously treated for cancer

CHICAGO – June 3, 2018 — NANT, a technology and research company connecting breakthrough research in biology, healthcare and other areas, announced on June 3 that the Food and Drug Administration authorized clinical trials for the company's investigational neopeptide yeast vaccine, YE-NEO-011, for a personalized, next-generation cancer immunotherapy.

The initial phase 1 clinical trial will focus on treating subjects with previously treated cancers using YE-NEO-001 in an effort to induce T-cell responses.

Subjects will be prescreened for enrollment prior to standard of care treatment for their cancers. Their tumor and normal DNA tissue will be analyzed using NantOmics' molecular profiling technology that drives GPS Cancer™ to determine their personalized neopeptides. The epitopes will be used to create a tumor-specific vaccine with YE-NEO-001.

Planned enrollment for this trial is up to 16 subjects.

"This is an important next step in our drive towards immuno-therapy 2.0 as we extend beyond checkpoint inhibitors. Identifying genomic sequences unique only to the tumor and activating specific T cells, the neopeptide, will be begin the next generation of immuno-oncology," said Dr. Patrick Soon-Shiong, CEO and chairman of NANT. "FDA authorization of our investigational neopeptide yeast vaccine will allow us to examine this possibility."

Soon-Shiong said the phase 1 trials' objectives would include evaluating the overall safety and optimal dose of YE-NEO-001 and a recommended phase 2 dose. Secondary objectives include understanding the initial effectiveness in terms of cancer recurrence rate, disease free-survival and overall survival. Another goal of the study will be to assess the molecular profiles of tumors as well as changes in immune responses that the therapy creates, Soon-Shiong said.

"There's continued value in examining tumors' molecular profile and approaching cancer from a biological, rather than an anatomical perspective," Soon-Shiong said.

About NANT:

NANT is a technology and biotechnology company solving humanity's greatest problems, addressing global life-threatening diseases, global environmental threats and providing a global forum for policy change.

NANT companies drive innovation across disciplines, connecting breakthrough research in biology, healthcare, energy, communications and artificial intelligence. NANT serves as an incubator for projects delivering on the next age of the Fourth Industrial Revolution.

Our work expands the boundaries of science and technology — pressing for real world applications that can be used now, while broadening the scope of scientific discovery and enhancing ground-breaking research.

NANT companies accelerate and lead improvements in healthcare treatment to those in need, develop and deploy breakthroughs in medical therapy, augment intelligence as well as deliver energy storage. With the development of these efforts there is a need to share the power, reach and global impact of this research.

Today, NANT is developing unique solutions and platforms that will have major impact on mankind including:

- Establishing the nation's largest whole genome machine learning artificial intelligent platform interrogating the cancer genome
- The nation's largest database and trained predictive models on whole genome expression in cancers across 20 tumor types
- The nation's largest pediatric brain tumor atlas of whole genomes from over 2500 samples from 1200 patients, with mutation expression linked to treatment and outcomes
- The nation's first TCGA Atlas linked to outcomes in collaboration with the Department of Defense
- The nation's first cancer therapeutic combination of natural killer cells and adenovirus to drive a vaccine like response against cancer
- Addressing life threatening infectious diseases with breakthrough therapies: a universal influenza vaccine, a treatment for drug resistant TB, a treatment to eradicate residual HIV sanctuaries
- Solving energy storage and developing solutions covering 4 million lives with over 100 micro-grid energy storage solutions. NANT is developing an intelligent breathing cell, a Zinc-Air battery enabling the most cost-effective energy storage in this era of renewable energy.

For more information, please visit <http://www.nant.com>

About NantOmics:

NantOmics, a member of the NantWorks ecosystem of companies, uses the technology that drives NantHealth's GPS Cancer platform to deliver molecular analysis capabilities with the intent of providing actionable intelligence and molecularly driven decision support for cancer patients and their providers at the point of care. NantOmics is the first molecular analysis company to pioneer an integrated approach to unearthing the genomic and proteomic variances that initiate and drive cancer, by analyzing both normal and tumor cells from the same patient and following identified variances through from DNA to RNA to protein to drug. NantOmics has a highly scalable cloud-based infrastructure capable of storing and processing thousands of genomes a day, computing genomic variances in near real-time, and correlating proteomic pathway analysis with quantitative multi-plexed protein expression analysis from the same micro-dissected tumor sample used for genomic analysis. For more information please visit www.nantomics.com and follow Dr. Soon-Shiong on Twitter [@DrPatSoonShiong](https://twitter.com/DrPatSoonShiong).

About GPS Cancer™

GPS Cancer™ is a unique, comprehensive test available through NantHealth. GPS Cancer integrates tumor/normal DNA and RNA sequencing, with enhanced expression analysis and bioinformatics of complex biologic pathway systems, including the immune system which provides oncologists with a comprehensive molecular profile of a patient's cancer to inform personalized treatment strategies. GPS Cancer testing is conducted in CLIA-certified and CAP-accredited laboratories. For more information, visit www.gpscancer.com.

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