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COMPANY OF THE YEAR

Kineta

TOP IMMUNOTHERAPY COMPANIES 2020

Recognized by pharma TECH OUTLOOK

The annual listing of 10 companies that are at the forefront of providing Immunotherapy solutions and transforming businesses

Kineta

Leading the Anti-Cancer Crusade With Novel Immunotherapies

The aim of immunotherapy is to enhance the immune system's ability to recognize and destroy tumor antigens. It is marked by the induction of adaptive immunity through vaccination, treatment with checkpoint inhibitors or the use of engineered T cells that have the natural ability to bind to antigens on the surface of cancer cells. Despite exhibiting some promising results, adaptive immunotherapy's success rate in cancer patients is still limited to 30-40 percent. In addition to this lower patient response rate, several risk factors can be associated with such therapy, including autoimmune disease, cytokine release syndrome (CRS) and neurologic problems. Much progress is still needed to crown immunotherapy with success across diverse patient- and cancer-types.

With a comprehensive understanding of the scenario, Seattle-based biotechnology company, Kineta has set a simple yet powerful mission: to develop novel immunotherapies that transform patients' lives. The company leverages its expertise in immunology to create a pipeline of investigational drugs and pave the way for the next-gen immunotherapies by focusing on innate immunity. "The outcomes of first generation or adaptive immunotherapy are not satisfactory. Our goal is to help those patients who do not respond to current immunotherapies and expand the reach of innate immunotherapy to a wide range of cancer types," says Shawn Iadonato, the CEO at Kineta.

Prominent Challenges for Immunotherapy

However, the concept of utilizing patients' innate immunity to fight cancer is complicated for several reasons. To illustrate, tumors generally thrive in an immunosuppressive microenvironment (TME), consisting of cancer cells, stromal tissue, and extracellular matrix. This ecosystem enables tumors to thwart immune responses by impairing antigen presentation, formulating negative costimulatory signals, and strengthening immunosuppressive and pro-apoptotic factors. A key driver of the immunosuppressive TME is V-domain Ig suppressor of T cell activation (VISTA)—a novel immune checkpoint protein—that negatively regulates T lymphocytes' function. To remove this barrier, Kineta is currently developing a novel anti-VISTA antibody for the treatment of solid tumors. This antibody may turn immunosuppressive cells into inflammatory or immuno reactive ones, increase effect or T cell (Teff) migration and tumor infiltration and drive anti-tumor responses. The clinical trial of this antibody will begin in 2021.

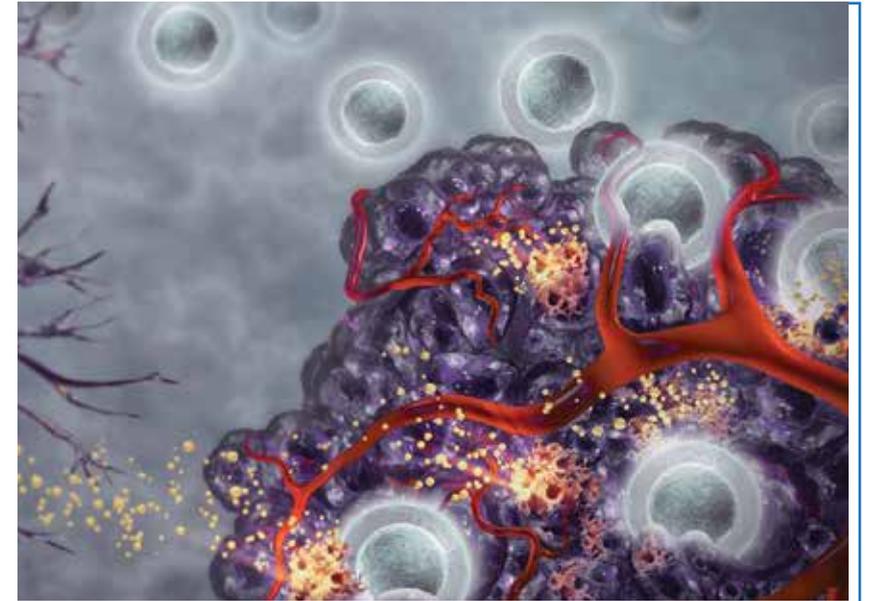
"We will evaluate the product in patients who have not been treated adequately with current immunotherapy and critically examine the



Shawn Iadonato,
CEO



We are always ready to focus and invest in novel immunotherapies and never go after producing me-too drugs



outcomes," Iadonato elucidates. "The idea of leveraging innate immunity for cancer treatment has not advanced as far as adaptive immune-targeted therapies. But, Kineta's goal is to effectuate alternative cancer treatment methods, and its anti-VISTA antibody is a validation of this experimental approach."

Beyond the Anti-Vista Antibody

In addition to the VISTA antibody program, Kineta is focusing discovery stage research efforts on undisclosed innate immune targets that have the potential to turn cold tumors hot and complement checkpoint inhibitor therapy.

While the anti-VISTA antibodies and innate immune discovery program have helped Kineta to etch its niche in the oncology space, the company is also developing $\alpha 9/\alpha 10$ nicotinic acetylcholine receptor (nAChR) antagonists for neuropathic pain that is caused by damage of the somatosensory nervous system. To do so Kineta, has signed an exclusive research collaboration and option agreement with Genentech, a biotech corporation and member of the Roche Group. In preclinical studies, $\alpha 9/\alpha 10$ nAChR antagonists have demonstrated analgesic, anti-inflammatory and neuroprotective properties, suggesting that they have the potential to slow or halt the progression of chronic pain. The preclinical data has exhibited the drug's capability to formulate a safer (without any effect on the central nervous system) and non-addictive way for chronic pain treatment. Kineta received Clinical Trial Application (CTA) approval in the Netherlands for initiation of a first in-human clinical trial of KCP506 that will commence in Q4 2020. "Genentech has extensive experience in developing ground-breaking therapies and the collaboration is helping us accelerate the go-to-market time," Iadonato notes. Apart from its efforts in IO and pain,

the company is also striving to stem the spread of emerging infectious diseases. The company is working together with the Wellcome Trust—a charitable health foundation—to stop the spread of Lassa fever, an acute viral hemorrhagic illness which is endemic in many West-African regions like Sierra Leone, Liberia, Guinea, and Nigeria. LHF535 is a first-in-class antiviral that recently completed Phase 1 safety and tolerability studies in healthy volunteers.

Behind such an immense success of the company lies the team that has been working together for years (from their first company Illumigen Biosciences, which was later acquired by Cubist Pharmaceuticals) and comprises leading scientists from the immunology field. The Kineta team today works collaboratively and shares different ideas. As a result, the company has developed innovative ideas to advance their R&D.

Such a focus on innovation, forged with a team of passionate individuals always drives Kineta to explore new avenues of success. Last year, the company bolstered its partnership with Genentech. They also launched a development program and dedicated new resources to the anti-VISTA product. Looking forward, Kineta will open up new avenues in the realm of blockbuster drug development. In addition, it is looking forward to developing new immunology assets and transitioning from a private to a public company. "The COVID-19 has temporarily interrupted our supply chain operations and delayed the start of clinical trials. But we are always ready to focus and invest in novel immunotherapies and never go after producing me-too drugs. Having such a focus on innovation, we aim to equip health care providers with the best product that they need to serve their patients better," Iadonato concludes.