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BioEconomy Newsletter

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Biotech Startups Overview

- With Ex-Medivation Exec Hung at Helm, Nuvation Nabs \$275M for Cancer
- Pinteon Gets \$17M to Tackle Tau in Alzheimer's, Other Brain Diseases
- Disc Medicine Launches With \$50M to Advance New Anemia Treatments
- Backed by \$50M, Verseau Launches to Reprogram Immune Cells Against Cancer
- Led by Gilead Veteran Riva, Glenmark's Ichnos Steps Out on Its Own

BioEconomy News

- **Alnylam** Announces Filing for Marketing Authorization of **ONPAT'TRO®** (patisiran) in **Brazil** for the Treatment of Hereditary **AT'TR Amyloidosis** with **Polyneuropathy**
- **Nobel Prize in Medicine** Goes to 3 Who Showed How Cells Sense Oxygen Levels
- SeaGen to Seek FDA Nod After Breast Cancer Drug Hits Goals of Key Study

Noble prize in Medicine goes to 3 Who showed how cells sense oxygen levels

In early October the 2019 Nobel Prize in Medicine was awarded to William Kaelin Jr., Sir Peter Ratcliffe, and Gregg Semenza for their work identifying the molecular machinery that regulates the activity of genes in response to changes in oxygen levels. Semenza discovered hypoxia-inducible factor (HIF), proteins that play a role in the body's response to low oxygen. Kaelin discovered how the HIF proteins are regulated through his work on von Hippel-Lindau (VHL) disease and protein degradation. Ratcliffe furthered the study of VHL and protein degradation and also showed how cells sense changes in oxygen levels. All three men have provided increased understanding about the role of oxygen levels in disease and have paved the way for new research concerning cancer, anemia, and stroke.



Alnylam Announces Filing for Marketing Authorization of ONPATRO® (patisiran) in Brazil for the Treatment of Hereditary ATTR Amyloidosis with Polyneuropathy

Alnylam filed for the marketing authorization of patisiran with the Brazilian Health Regulatory Agency. This will mark Alnylam's first drug submitted for review in Brazil and if approved, will be the first RNAi therapeutic approved in Latin America. Hereditary ATTR Amyloidosis is considered endemic in Brazil and the approval of patisiran would be life changing for those affected by this disease.



SeaGen to Seek FDA Nod After Breast Cancer Drug Hits Goals of Key Study

Seattle Genetics reported a pivotal clinical trial for an experimental breast cancer drug has met its main goals. The drug, tucatinib, is a treatment for advanced breast cancer with abnormally high levels of HER2. In combination with two chemotherapies, tucatinib reduced the risk of the cancer continuing to spread by 46% as compared to chemotherapy alone. Based on these results, SeaGen plans to seek FDA approval in the first quarter of 2020.

Therapeutic Research

1. Nature Materials: Extracellular matrix anisotropy is determined by TFAP2C-dependent regulation of cell collisions
2. Science: Broadly protective human antibodies that target the active site of influenza virus neuraminidase
3. Science Translational Medicine: Proof-of-concept clinical trial of etokimab shows a key role for IL-33 in atopic dermatitis pathogenesis
4. Cancer Research: HNF4 α -deficient Fatty Liver Provides a Permissive Environment for Sex-independent Hepatocellular Carcinoma
5. Blood: Resveratrol trimer enhances gene delivery to hematopoietic stem cells by reducing antiviral restriction at endosomes.
6. Science Translational Medicine: Astrocyte molecular signatures in Huntington's disease

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