

OBD presents results of immunotherapy studies at FNIH Biomarker Consortium Cancer Steering Committee's annual meeting

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EpiSwitch™ technology shows consistent profile of predictive biomarkers for response to immune checkpoint inhibitor therapy

Oxford BioDynamics Plc, a biotechnology company focused on the discovery and development of epigenetic biomarkers based on regulatory genome architecture, for use within the pharmaceutical and biotechnology industry, presented its latest results at the annual meeting of the Foundation for National Institute for Health (FNIH) Biomarker Consortium Cancer Steering Committee, held in Washington, DC on 6-7 November 2017.

In the session dedicated to immune-oncology biomarkers, Dr A. Akoulitchev, Chief Scientific Officer of OBD, presented the results from three independent studies which showed a consistent profile of epigenetic markers for response to immune checkpoint inhibitor therapies, including anti-PD-L1 therapy Keytruda (Pembrolizumab) and several other anti-PD-L1 assets in two disease indications.

Blind validation of an independent cohort of base line patients treated with an anti-PD-L1 therapeutic showed that OBD's *EpiSwitch™* technology could predict response to treatment with a 83% positive predictive value (PPV). The biological relevance of identified epigenetic regulatory

biomarkers for immunotherapy was strongly supported by their role in T-cell reinvigoration, survival, and proliferation to tumor burden.

It was also shown that a sub-group of the predictive *EpiSwitch*[™] markers for response to treatment, identified and verified in over 57 patients, were associated to genes which are downstream of Interferon gamma stimulation. Another subgroup of biomarkers revealed high concordance with regulatory controls of MHC II receptors, known to play critical role in response to anti-PD-1 therapy. Full scope of the patient cohorts analyzed by OBD will exceed 180 patients.

Further implications of *EpiSwitch*[™] based approaches to patient stratifications were also discussed, including exclusion of patients with hyper progression and other side effects to immunotherapy.

The Biomarkers Consortium is a public-private biomedical research partnership managed by the FNIH that endeavors to discover, develop, and seek regulatory approval for biological markers, known as biomarkers, to support new drug development, preventive medicine, and medical diagnostics.

The Steering Committees are responsible for identifying and moving forward promising pre-competitive biomarkers projects for implementation by The Biomarkers Consortium, as well as overseeing each individual project under its purview. The members of each Steering Committee represent a variety of sectors, including academia, government, industry and not-for-profit/advocacy organizations. OBD is represented at the Steering Committees covering Cancer, Inflammation & Immunity, and Neuroscience by Dr Claudio Carini, an Advisor to OBD and a member of the Company's Scientific Advisory Panel.

Christian Hoyer Millar, CEO of Oxford BioDynamics, commented:

We are delighted with the progress and consistent quality of

biomarker data that our EpiSwitch™ platform has been able to deliver in these immunotherapy studies. The immunotherapy biomarker programme has developed into a high value area of interest for OBD and we are committed to offering quick and robust practical solutions for patient stratifications for all the therapy programme we are working on.

We have been actively expanding our intellectual property footprint, and with our technology demonstrating consistent practical solutions, we see immunotherapy as a strategic line of biomarker development for our Company, which we believe has the potential to further improve clinical outcomes and the standard of patient care in this area.

We believe that being among a network of many reputable companies and institutions will be beneficial as we continue to progress towards our strategic aim of becoming the industry standard for chromosome conformations and biomarkers in genome architecture.

Source:

<https://www.oxfordbiodynamics.com/wp-content/uploads/2017/11/Sasha-3-Talk-at-NIH-Steering-Committees-FINAL.pdf>