Oxford BioDynamics and King's College London collaborate to develop EpiSwitch® prognostic and predictive biomarkers for best prevention of rheumatoid arthritis following the APIPPRA trial.

- APIPPRA trial is the largest rheumatoid arthritis (RA) prevention trial to date, led by Professor Andy Cope, King's College London

- Data published in *The Lancet* in February 2024, showed that 92.8% of patients at risk of RA, when treated with Abatacept, remained RA-free at the end of the one year of treatment

- 25% of treated patients who initially showed response subsequently developed RA

- Highlights the need for improved stratification tools to identify individuals at high risk of RA, with predicted efficacious response to Abatacept

- Professor Cope and his team at King's College London, are now collaborating with Oxford BioDynamics, to develop prognostic and predictive blood-based EpiSwitch® biomarkers to identify patients at risk of RA who can benefit from Abatacept treatment

Oxford, UK - 16 May 2024 - Oxford BioDynamics, Plc (AIM: OBD, "OBD" or the "Company" and, together with its subsidiaries, the "Group"), a biotechnology company developing precision medicine tests based on the EpiSwitch® 3D genomics platform, today announced it is collaborating with the King's College London team in the immediate follow up of the APIPPRA trial, the largest RA prevention trial to date.

The APIPPRA trial of Abatacept was a multicentre trial in 213 individuals at high risk of rheumatoid arthritis. Break-through results of the trial were recently published in *The Lancet* in February 2024 [1] and covered in the mainstream media (links here and here). **Prof Andrew Cope, who led the research, commented:** *"The APIPPRA trial is the largest rheumatoid arthritis prevention trial to date, and the first to show a treatment effective in preventing the onset of disease in people at risk."*

In the immediate follow-up of the successful trial, The King's College London team has now engaged OBD's EpiSwitch® technology, which has already delivered successful results on prognosis of disease and prediction of response to treatment [2,3], to identify which patients are at the highest risk of progressing to RA and are likely to benefit from the therapeutic intervention with Abatacept, in both the short and long term.

While 92.8% of those treated with Abtacept were RA-free at the end of year 1, about 25% of this group ultimately progressed to rheumatoid arthritis by the end of the second year after stopping treatment. This highlights the importance of an accurate risk assessment and the need for improved stratification tools to identify those individuals who will have the benefit of a durable, efficacious response - a task well-suited to EpiSwitch® biomarkers developed by OBD.

Professor Andrew Cope, King's College London said: *"There are currently no drugs available that prevent this potentially crippling disease. The initial results from the APIPPRA trial could be good news for people at risk of arthritis. We are excited about our collaboration with Oxford Biodynamics and the early results in helping us identify patients at highest risk and how to reduce it. EpiSwitch® technology is delivering biomarkers of high biological relevance."*

Rheumatoid arthritis (RA) is a common chronic inflammatory immune-mediated disease of joints, afflicting more than 500,000 in the UK [4,5] and another 1.5M in the US [6]. If not adequately treated, the condition leads to destruction of synovial joints and significant disability. RA is costly to individuals and their families; one third of patients with arthritis stop work within two years of onset because of the deterioration in quality of life associated with their disease [7]. In the UK, RA costs are estimated to be in the region of £5 billion per year through direct costs to the National Health Service (NHS) and associated healthcare providers and indirect costs associated with early mortality and loss of productivity [8].

Abatacept is a biological disease-modifying antirheumatic drug recommended for the treatment of rheumatoid arthritis. Abatacept has shown efficacy in the treatment of active rheumatoid arthritis when used as monotherapy or in combination with conventional disease-modifying antirheumatic drugs in patients with an inadequate response to other conventional or biological disease-modifying antirheumatic drugs [1].

Dr Alexandre Akoulitchev, CSO at OBD, said: *"With fast adoption of EpiSwitch® 3D genomic biomarkers across many fields, our collaboration with Professor Cope is of particular importance. The value delivered by our proven biomarker technology in the field of prognostic and predictive biomarkers in oncology, should and would be matched by applications in rheumatoid arthritis. Treatment of autoimmune conditions could greatly benefit from the accuracy and robustness of blood-based EpiSwitch® readouts. With regards to delivering benefits to patients and health system economics, there is no time to lose."*

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Notes to Editors

About Oxford BioDynamics Plc

Oxford BioDynamics Plc (AIM: OBD) is a global biotechnology company, advancing personalized healthcare by developing and commercializing precision medicine tests for life-changing diseases.

Its flagship products are the EpiSwitch® CiRT (Checkpoint Inhibitor Response Test) and EpiSwitch® PSE (EpiSwitch Prostate Screening test) blood tests. CiRT is a predictive immune response profile for immuno-oncology (IO) checkpoint inhibitor treatments, launched in February 2022. PSE is a blood test that boosts the predictive accuracy of a PSA test from 55% to 94% when testing the presence or absence of prostate cancer, which has been launched in the US and UK in September 2023.

In March 2021, the Company launched its first commercial prognostic test, EpiSwitch® CST (Covid Severity Test) and the first commercially available microarray kit for high-resolution 3D genome profiling and biomarker discovery, EpiSwitch® Explorer Array Kit which is available for purchase by the life science research community.

The Company's product portfolio is based on a proprietary 3D genomic biomarker platform, EpiSwitch®, which can build molecular diagnostic classifiers for the prediction of response to therapy, patient prognosis, disease diagnosis and subtyping, and residual disease monitoring in a wide range of indications.

Oxford BioDynamics has participated in more than 40 partnerships with big pharma and leading institutions including Pfizer, EMD Serono, Genentech, Roche, Biogen, Mayo Clinic, Massachusetts General Hospital and Mitsubishi Tanabe Pharma.

The Company has created a valuable technology portfolio, including biomarker arrays, molecular diagnostic tests, bioinformatic tools for 3D genomics and an expertly curated 3D genome knowledgebase comprising hundreds of millions of data points from over 15,000 samples in more than 30 human diseases.

OBD is headquartered in Oxford, UK and is listed on AIM of the London Stock Exchange. It also has a commercial office in Gaithersburg and a clinical laboratory in Frederick, MD, USA, and a reference laboratory in Penang, Malaysia.

For more information, please visit the Company's website, www.oxfordbiodynamics.com, or follow OBD on Twitter (@OxBioDynamics) and LinkedIn.

About EpiSwitch®

The 3D configuration of the genome plays a crucial role in gene regulation. By mapping this architecture and

identifying abnormal configurations, EpiSwitch® can be used to diagnose patients or determine how individuals might respond to a disease or treatment.

Built on over 10 years of research, EpiSwitch® is Oxford Biodynamics' award-winning, proprietary platform that enables screening, evaluation, validation and monitoring of 3D genomic biomarkers. The technology is fully developed, based on testing of over 15,000 samples in 30 disease areas, and reduced to practice.

In addition to stratifying patients with respect to anticipated clinical outcomes, EpiSwitch® data offer insights into systems biology and the physiological manifestation of disease that are beyond the scope of other molecular modalities. The technology has performed well in academic medical research settings and has been validated through its integration in biomarker discovery and clinical development with big pharma.

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