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Oxford BioDynamics Plc
("OBD" or the "Company")

Study finds five major fatigue-related conditions converge on shared regulatory networks when analysed using Oxford BioDynamics' EpiSwitch® Orion platform

Demonstrates how EpiSwitch® Orion can uncover new biological insights from existing genomic data, supporting pharma, biotech and academic research into complex diseases

Oxford, UK - 03 September 2026 - Oxford BioDynamics Plc (AIM: OBD, the "Company"), the international biotechnology company advancing personalised healthcare through precision clinical diagnostic tests and EpiSwitch® Orion, its cloud-based 3D genomics platform for pharma and biotech partners, notes the publication of a peer-reviewed study led by the University of East Anglia ("UEA"), in collaboration with OBD, the London School of Hygiene & Tropical Medicine and Cornwall Partnership NHS Foundation Trust.

The study applied OBD's EpiSwitch Orion AI-enabled discovery platform to five clinically distinct conditions associated with profound, disabling fatigue - myalgic encephalomyelitis/chronic fatigue syndrome ("ME/CFS"), long COVID, post-traumatic stress disorder ("PTSD"), rheumatoid arthritis and multiple sclerosis - and found that, despite almost no overlap between the genes individually associated with each condition, they converge on shared regulatory networks when viewed through the lens of 3D genome architecture.

Highlights

- Peer-reviewed, computational study led by UEA's Norwich Medical School, using OBD's EpiSwitch Orion platform to analyse published genomic data across five clinically distinct conditions linked to chronic, disabling fatigue
- At the level of individual genes, little overlap was found between the conditions; however, network-level analysis using Orion revealed that they converge on the same underlying regulatory circuitry
- Shared circuitry spans immune and inflammatory signalling, mitochondrial energy production, metabolic regulation, stress-response mechanisms and neuroendocrine signalling
- Findings illustrate Orion's ability to reveal systems-level, 3D regulatory biology that is not otherwise visible from the underlying DNA sequence alone, supporting its use as a discovery platform for pharma, biotech, and academic partners
- Study published in the peer-reviewed *Journal of Translational Medicine*

Rather than analysing DNA sequence conventionally, the research team used EpiSwitch Orion to examine the three-dimensional architecture of the genome - how DNA folds and interacts within cells to control gene activity. Published genomic data for long COVID, PTSD, rheumatoid arthritis and multiple sclerosis, drawn from existing genome-wide association studies, were combined with 3D genomic data from an earlier ME/CFS patient study, without the need to collect new patient samples.

The analysis identified a number of highly connected "hub genes" sitting at the busiest points within these shared networks, including genes involved in immune regulation, inflammatory signalling and mitochondrial energy production. The authors note that these are candidates identified through computational analysis and that further work is needed to confirm their role.

Prof Dmitry Pshezhetskiy, lead researcher from UEA's Norwich Medical School, said:

"At an individual gene level, there was surprisingly little direct overlap between long Covid, ME/CFS, PTSD, multiple sclerosis and rheumatoid arthritis. But when we analysed how those genes interact in complex biological networks, a completely different picture emerged - the diseases appeared deeply

connected. This is not something you can see by reading the genetic sequence alone, which is why these conditions may have looked unrelated for so long."

Richard Compton, Chief Executive Officer of OBD, said:

"Pharma, biotech and academic groups hold years of accumulated genomic data from sequencing programmes and clinical studies. Orion allows them to return to that data and interrogate a layer of 3D regulatory biology that conventional sequence analysis does not reveal, without new sequencing or new patient samples. In this study, that approach revealed shared regulatory networks across five clinically distinct conditions that show almost no overlap at the individual gene level.

The same analysis can be applied to datasets partners already own, extracting more value from existing genomic data by identifying disease mechanisms, therapeutic targets, biomarkers, and opportunities for patient stratification. This study demonstrates how Orion can be used to generate new insights in a particularly complex group of diseases."

The research was led by UEA in collaboration with OBD, the London School of Hygiene & Tropical Medicine and Cornwall Partnership NHS Foundation Trust. The study was funded by OBD, and a number of the authors are full-time OBD employees, including the developers of the EpiSwitch Orion platform; full funding and competing interest statements are set out in the published paper. The study is a computational analysis integrating existing datasets; its findings are hypothesis-generating and require independent laboratory validation.

The full UEA press release is available here: https://www.uea.ac.uk/about/news/article/scientists-uncover-shared-biology-behind-profound-fatigue-in-five-major-illnesses

The paper, 'Beyond Genes: EpiSwitch® and Orion Platform-powered 3D Genome Architecture Biomarkers Reveal Shared Biology Across ME/CFS, Long COVID, PTSD, Rheumatoid Arthritis, and Multiple Sclerosis', is published in the Journal of Translational Medicine and is available here: https://doi.org/10.1186/s12967-026-08874-9

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Notes for Editors

About Oxford BioDynamics Plc

Oxford BioDynamics Plc (AIM: OBD) is an international biotechnology company, advancing personalised healthcare through precision clinical diagnostic tests and EpiSwitch Orion, a cloud-based 3D genomics platform that transforms existing datasets into actionable insights for pharma and biotech partners.

Currently OBD has two commercially available products: the EpiSwitch PSE (EpiSwitch Prostate Cancer Detection Test) and EpiSwitch CiRT (Checkpoint Inhibitor Response Test) blood tests. PSE boosts the predictive accuracy of a PSA test from 55% to 94% when testing the presence or absence of prostate cancer. CiRT is a highly accurate (85%) predictive response test to immuno-oncology checkpoint inhibitor treatments.

The tests are based on OBD's proprietary 3D genomic biomarker platform, EpiSwitch, which enables screening, evaluation, validation and monitoring of biomarkers to diagnose patients or determine how individuals might respond to a disease or treatment.

The Company's recently launched proprietary AI predictive platform, EpiSwitch® Orion, makes the Company's knowledgebase and analytical tools available to researchers and partners, allowing them to generate insights into 3D regulatory biology from existing datasets. EpiSwitch Orion is a cloud-based 3D

genomics platform that enables pharmaceutical partners to transform standard sequencing data - including legacy whole genome datasets - into actionable discovery insights in hours rather than months. By revealing the genome's 3D architecture, EpiSwitch Orion illuminates the 90-95% of disease-associated variants in non-coding regions that traditional NGS and GWAS approaches cannot decipher, bridging the gap between statistical associations and druggable therapeutic targets. The platform is supported by the world's largest curated 3D genomics knowledgebase, featuring over 1.5 billion data points and 15 million high-confidence genomic connections validated across 18,000+ patient samples in more than 40 diseases - a foundation built over nearly two decades that enables partners to identify targets, build predictive classifier models, and design precision interventions at unprecedented speed.

OBD's clinical smart tests have the potential to be used across a broader range of indications, and new tests are being developed in the areas of oncology, neurology, inflammation, hepatology and animal health.

Since inception, the Company has participated in more than 40 collaborations with pharmaceutical and academic partners, including Pfizer, EMD Serono, Genentech, Roche, Biogen, Mayo Clinic, Massachusetts General Hospital and Mitsubishi Tanabe Pharma America, and has been awarded funding through the US Foundation for the National Institutes of Health's Partnership for Accelerating Cancer Therapies programme and the EU-funded HIPPOCRATES consortium in psoriatic arthritis.

The Company's headquarters and UK laboratories are in Oxford, UK. Its US operations and clinical laboratory are in Maryland, USA, along with a reference laboratory in Penang, Malaysia.

OBD is listed on the London Stock Exchange's AIM (LSE: OBD). For more information, please visit the Company's website, www.oxfordbiodynamics.com, X (@OxBioDynamics) or LinkedIn.

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