



ViraxImmune™ Platform Overview

TRANSLATING T CELL RESPONSES INTO OBJECTIVE IMMUNE INSIGHTS

ViraxImmune™ is being developed to characterise antigen-specific T cell responses and patterns of cellular immune dysregulation. By measuring selected cytokine responses following targeted peptide stimulation, the platform aims to generate objective cellular immune-profile data that may support clinical assessment and patient stratification.

HOW VIRAXIMMUNE™ ASSESSES T CELL REACTIVITY

ViraxImmune™ is being developed to combine objective cellular immune profiling with structured symptom assessments for chronic fatigue and cognitive impairment. This multidimensional approach aims to reduce diagnostic uncertainty and support clinical assessment.

Investigating T Cell Dysfunction in Post-Acute Infection Syndromes (PAIS)

Persistent immune dysregulation, including altered T cell phenotypes and antigen-specific responses, has been reported in patients with Long COVID and is being investigated as a potential contributor to other PAIS. During an acute infection, antigen-presenting cells engulf and process pathogen-derived antigens to activate T cells, initiating a robust cellular immune response. Activated effector T cells then proliferate rapidly and release cytokines that coordinate cellular immune responses.

When a pathogen evades clearance or leaves persistent antigenic triggers, the immune system remains locked in a state of continuous activation. Prolonged exposure to these antigens can drive T cells into a progressive state of cellular exhaustion. Exhausted T cells lose their capacity to proliferate, secrete vital cytokines, or mount effective targeted immune responses. Such immune-dysregulation mechanisms are being investigated as potential contributors to the complex clinical presentation of PAIS.

In some individuals, prolonged immune activation or persistent antigenic stimulation may be associated with altered T cell function or exhaustion-like phenotypes. ViraxImmune™ is being developed to characterise these antigen-specific cellular response patterns and provide objective insights into cellular immune function.

Advancing Objective Cellular Immune Profiling with ViraxImmune™

ViraxImmune™ is being developed to characterise cellular immune-response patterns that may complement clinical assessment and support patient stratification.

Patient-derived peripheral blood mononuclear cells (PBMCs) are isolated from a blood sample and exposed to selected pathogen-derived peptide pools under standardised laboratory conditions. Antigen-specific T cell responses are then assessed using FluoroSpot technology, which measures the selected cytokine responses released by these stimulated cells. The resulting cellular-response



data are analysed within a composite analytical framework being developed for ViraxImmune™. The resulting cellular immune-profile data are intended to complement clinical findings and may support clinical assessment and patient stratification.

The ViraxImmune™ Assay Workflow



ViraxImmune™ remains in development. The clinical utility and performance of ViraxImmune™ remain subject to ongoing validation and applicable regulatory requirements.

A Single Platform with Potential Across Multiple Applications

ViraxImmune™ is initially being developed to evaluate potential patterns of immune dysfunction associated with PAIS and related conditions, including Long COVID, ME/CFS and post-treatment Lyme disease. As clinical evidence develops, the platform may have broader potential in immune profiling and monitoring across additional applications.

Protective Immunity & Immune Monitoring

Potential future applications include functional T cell assessment, vaccine-response profiling, transplant-related immune competence and monitoring of cellular immune reconstitution.

Haemato-Oncology Applications

Potential future applications include profiling T cell exhaustion and immune reconstitution in haematological malignancies, and evaluating cellular immune responses in research involving therapies such as CAR-T.

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