

Singapore's Duke-NUS and T Cells Diagnostics team up to simplify T-cell analysis

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By precisely measuring the amount of virus-specific T cells in clinical sample



T Cell Diagnostics (TCD) has licensed an intellectual property (IP) and its related know-how from Duke-NUS Medical School to develop point-of-care assays that could simplify the analysis of T-cell responses.

Point-of-care tests can be performed quickly and easily at the site of patient care, such as in clinics or hospitals, without the need of specialised lab equipment. They provide rapid results, helping doctors and researchers make timely decisions.

TCD was established in Singapore in 2021 as a spin-off from Duke-NUS by Professor Antonio Bertoletti, Assistant Professors Nina Le Bert and Anthony Tan from Duke-NUS' Emerging Infectious Diseases Programme.

Developed based on the licensed IP and its related know-how, TCD's test kits precisely measure the amount of virus-specific T cells in clinical samples by stimulating biological samples, ranging from whole blood to nasal swabs and bronchoalveolar lavage fluids, with synthetic peptides. In response to the stimulation, the T cells release chemical signals called cytokines, which can be easily measured.

TCD offers end-to-end solutions, including project management, expert consultations, and advanced research testing services. The main focus is on analysing virus-specific cellular immune responses, with a particular emphasis on infections

such as HBV, HDV, Influenza, SARS-CoV-2, and Dengue.

By quantifying the number and function of antigen-specific T cells, TCD provides critical insights that can guide diagnosis, treatment, and vaccine development. Operating from a state-of-the-art BSL-2 laboratory in Singapore's Biopolis, TCD is strategically positioned to serve local, regional, and international clients.