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PM Modi launches IIT Madras Brain Centre's Mission of 3D Mapping 100+ Human Brains at cell resolution across human life

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PM dedicated the Centre to the country and released the World's first 3D Atlas of a Stroke Brain developed at the Centre



Narendra Modi, Prime Minister, on Sunday (11th Oct 2026) kicked off IIT Madras Sudha Gopalakrishnan Brain Centre's (SGBC) mission of mapping 100+ human brains into 3D atlases at cell-resolution across human life span from foetus to old age, including brain related diseases. This will be the largest set of 3D maps of whole human brains at cell resolution.

As part of the mission, the Prime Minister released 'C-STROKE', the world's first human ischemic stroke atlas developed by SGBC. C-STROKE is a landmark resource that bridges millimeter-scale pre-mortem MRI scans with micron-resolution whole-brain histology. This research is supported by Prem Watsa, Distinguished Alumnus of IIT Madras and Chairman of Fairfax Financial.

The atlas features over 1000 annotated brain sections from a stroke affected brain. By mapping critical cellular markers including neuronal health, neuroinflammation, blood-brain barrier disruption, hypoxia, and axonal injury, the atlas reveals for the first time the details of clinical imaging signatures at a microscopic cellular level.

The 3D maps were generated using Param Shakti supercomputer supported by MeitY. Complete with an open-access data viewer and analytical suite, the platform equips global researchers and clinicians to interrogate cerebrovascular pathology across spatial scales for discovering novel therapeutic targets directly in the human brain.