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From in situ cryoET to digital twins of subcellular segments

Tuesday, 3 March 2026 11:00 (20 minutes)

High-confidence 3D template matching (hcTM) turns in situ cryoET tomograms into simulation-ready subcellular segments. Multiscale simulations then make predictions later confirmed experimentally. For example, how mutations or composition changes propagate to mesoscale organization and biological function. Examples include human chromatin organization, viral transport and mutation-driven condensate solidification.

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Session Classification: Short Talk