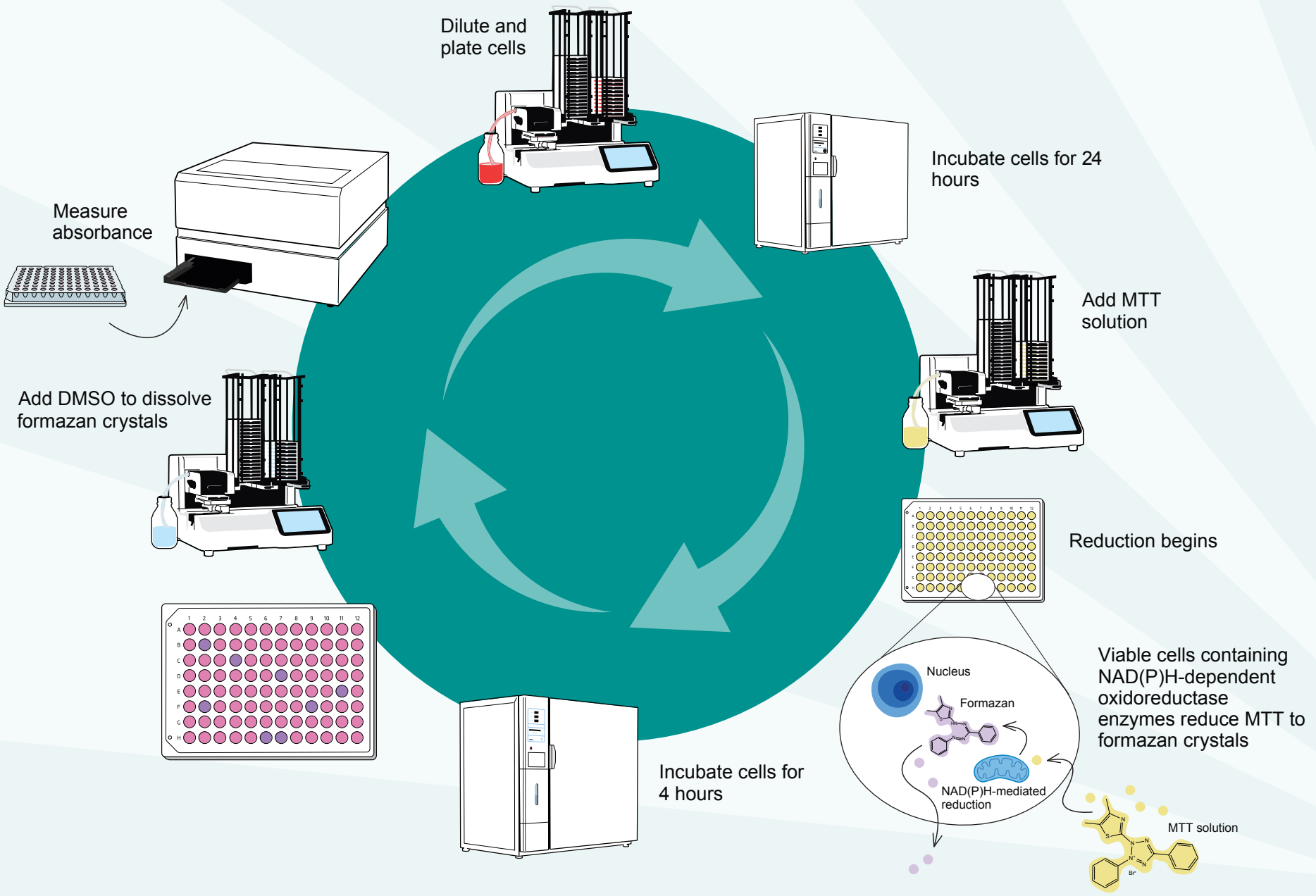
APPLYING REAGENT DISPENSING TO THE MTT ASSAY WORKFLOW

Using the MTT assay, scientists measure metabolic activity to determine cell viability, proliferation, and cytotoxicity. As MTT assays involve multiple cell and reagent dispensing steps in multiwell plates, using a reagent dispenser can improve experimental consistency and reproducibility. This poster shows how the **WELLJET** reagent dispenser can be integrated into the MTT assay workflow and lists essential materials.



ESSENTIAL MATERIALS

MATERIAL	DESCRIPTION
WELLJET dispenser	INTEGRA's WELLJET reagent dispenser and dispenser stacker perform multiple dispensing steps in the MTT assay workflow. Using the WELLJET, researchers can seed cells gently in the appropriate concentration. In later steps in the MTT assay, the WELLJET dispenser coordinates cell culture medium, MTT solution and DMSO dispensing across multiple multiwell plates.
EasySnap™ dispensing cassette	The WELLJET's EasySnap dispensing cassettes use molded silicone tubing with consistent dimensions, ensuring that accurate volumes are dispensed across channels and experiments. EasySnap dispensing cassettes come in 8 and 16 channel configurations for maximum protocol flexibility.
Cell culture medium	Researchers should use the ideal cell culture medium for their cell type of interest to optimize cell viability.
MTT solution	At the start of the assay, researchers dilute MTT in PBS. The solution forms a characteristic yellow color. The mitochondria in living cells metabolize MTT into formazan crystals. As this occurs, the solution turns purple.
DMSO	After incubation with MTT and removal of the cell culture medium containing residual MTT, dimethyl sulfoxide (DMSO) is added to the cells, which dissolves the newly formed formazan crystals.
Plate reader	A multiwell spectrophotometer or plate reader measures the absorbance at 500-600 nm for each well. The higher the absorbance or darker the solution, the greater the number of viable, metabolically active cells are present in each well.

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