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Japan's Daiichi Sankyo collaborates with BostonGene to accelerate AI-based drug development

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AI Foundation Models to enable precision ADC clinical development and response intelligence



US-based BostonGene, the developer of the leading AI foundation model for tumour and immune biology, has announced a strategic collaboration with Japanese pharmaceutical firm Daiichi Sankyo.

The collaboration will integrate AI-driven translational intelligence into the core of an antibody drug conjugate (ADC) development programme of Daiichi Sankyo to move beyond standard exploratory biomarker analysis and deliver decision-ready insights that directly inform patient selection strategies, development prioritisation and translational positioning.

By generating digital twin representations from hundreds of thousands of multiomic and histopathologic patient profiles, BostonGene identifies the precise biological signatures and efficacy-associated mechanisms that distinguish responders from non-responders. This deep molecular mapping will enable the collaboration to define unique molecular subgroups by benchmarking the investigational medicine relative to approved treatments and existing standards of care.

Additionally, these analyses will help enable clear asset differentiation by identifying unique therapeutic profiles and biological advantages. The platform also provides actionable insights into resistance pathways and the tumor microenvironment necessary to optimise future trial design and clinical positioning.