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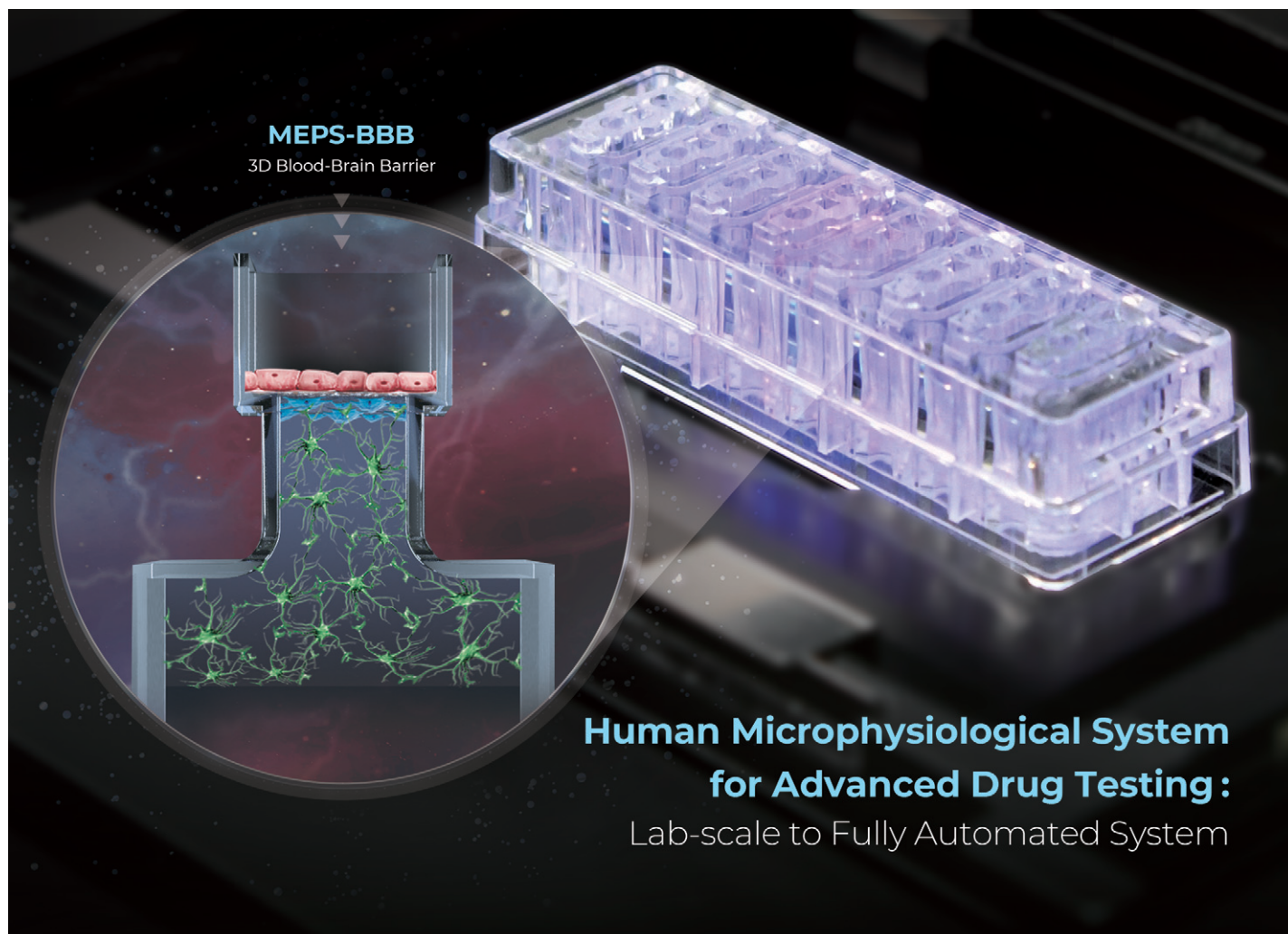Median time to first decision (peer reviewed articles only): 32 days*.

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**MEPS-BBB**
3D Blood-Brain Barrier

# Human Microphysiological System for Advanced Drug Testing :
## Lab-scale to Fully Automated System

**Showcasing research from Professor YongTae Kim's laboratory, School of Mechanical Engineering, Georgia Institute of Technology, Georgia, USA.**

Manufactured tissue-to-tissue barrier chip for modeling the human blood–brain barrier and regulation of cellular trafficking

This manuscript presents a manufactured form of 'micro-engineered physiological system-tissue barrier chip' called MEPS-TBC on which in the current study researchers can model the human blood–brain barrier (BBB) with a 3D perivascular space. The 2D-3D hybrid compartmentalized structure allows more physiologically relevant modelling with 3D tissue regions where astrocytes reside with polarization and end-foot processing. The manufactured chip technology with high precision and high reproducibility will construct reliable and standardized microphysiological models for disease mechanism studies and predictive drug screening.

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