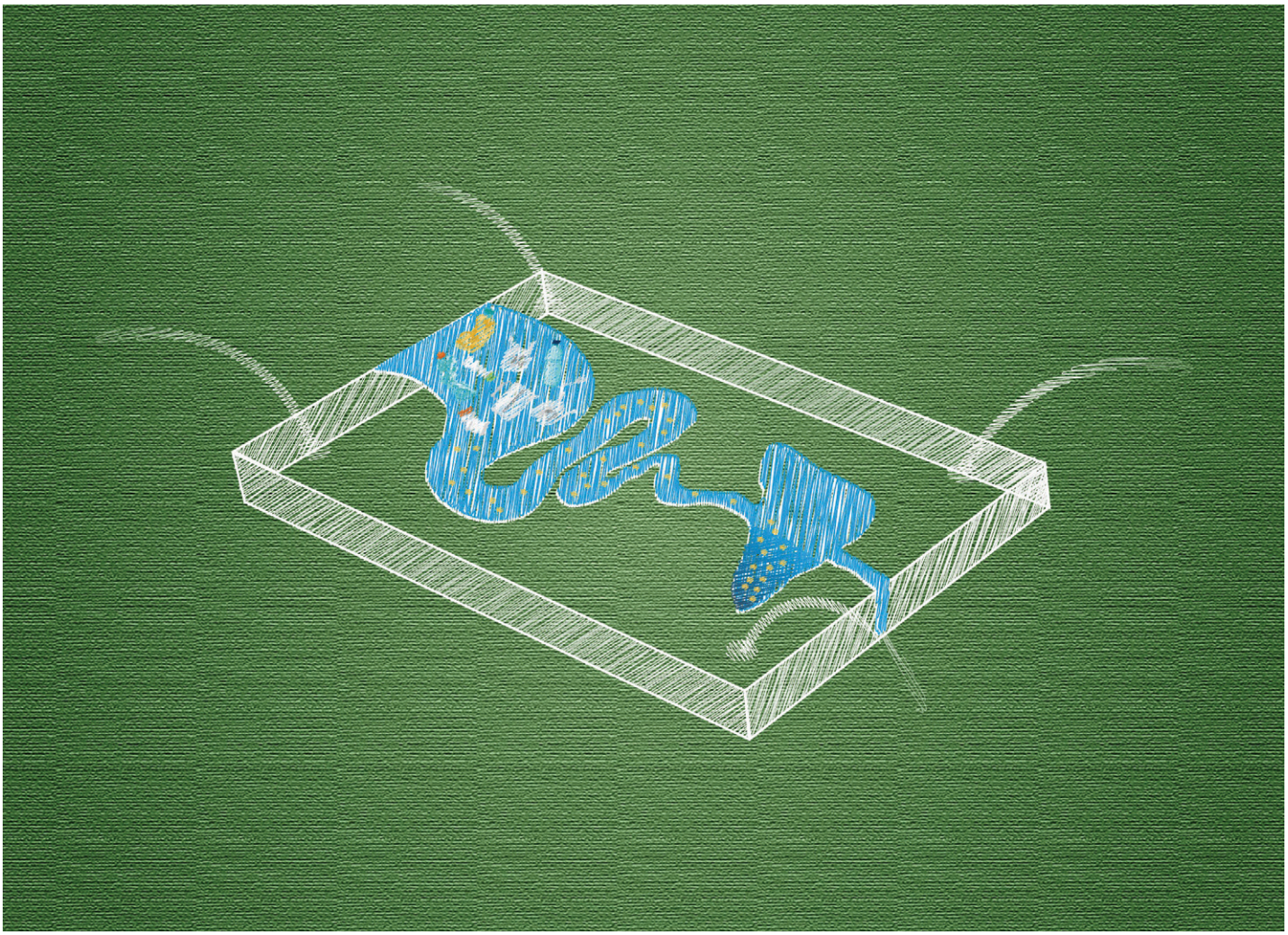

**Showcasing research from Professor Li Wang's laboratory, School of Mechanical Engineering, Qilu University of Technology (Shandong Academy of Sciences), Shandong, China.**

Revealing transport, uptake and damage of polystyrene microplastics using a gut-liver-on-a-chip

Our study introduces a gut-liver-on-a-chip (GLOC) featuring biomimetic intestinal peristalsis (0-5% strain) and a dynamic hepatic flow environment to explore the transport of microplastics in the intestine and their accumulation in the liver following oral ingestion. This chip simultaneously mimics the intestinal barrier function and hepatic metabolic characteristics, revealing the transport and enrichment of oral microplastics within the gut-liver axis, while highlighting the critical role of intestinal peristalsis in alleviating liver damage.

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Image designed and illustrated by Yushen Wang.

## As featured in:


See Xinyu Li, Li Wang *et al.*, *Lab Chip*, 2025, **25**, 1656.

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