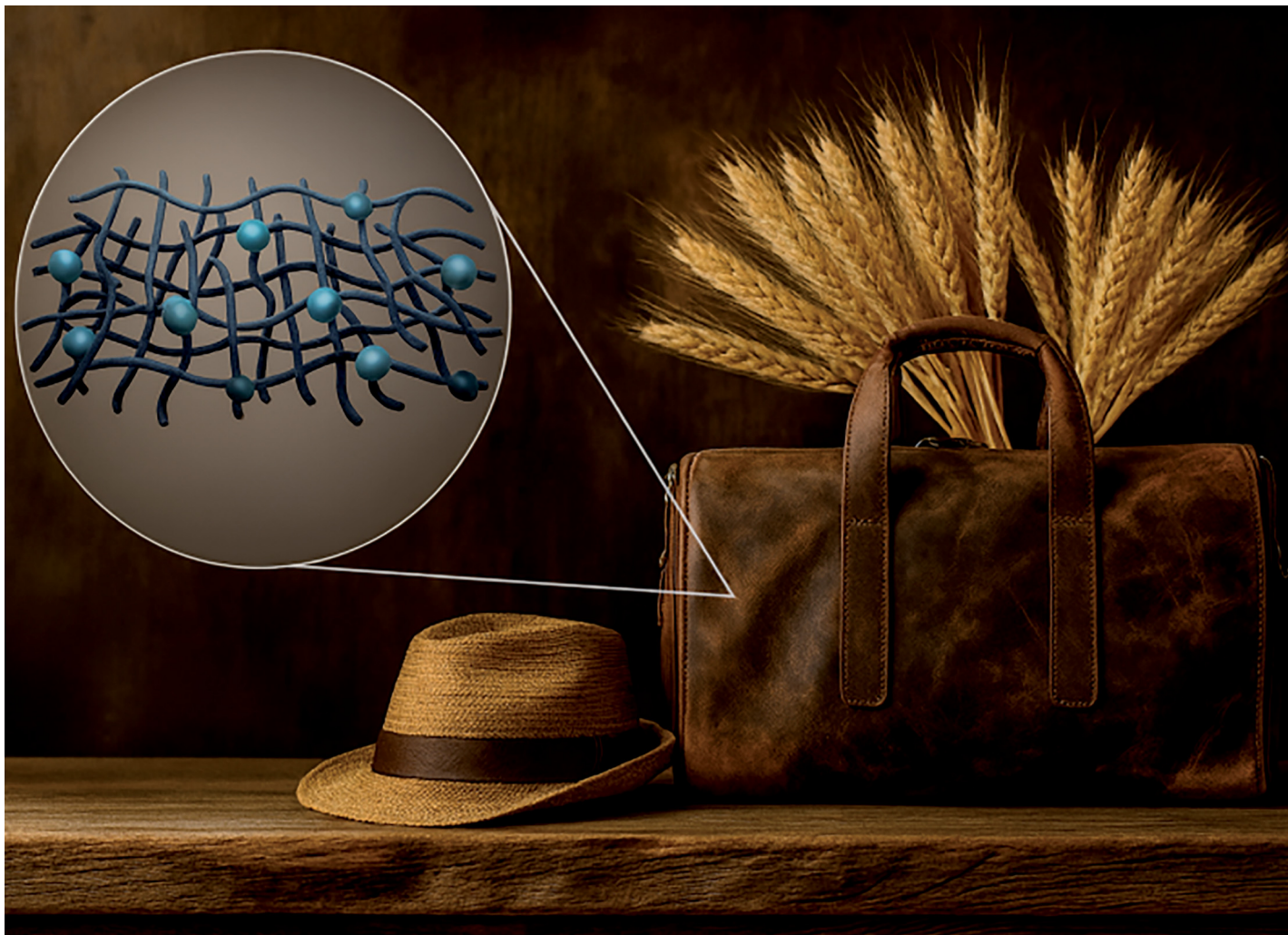




Highlighting research from the Circular Polymer Laboratory led by Professor Dongyeop Oh at Korea University, Republic of Korea, focused on biobased sustainable polymer materials.

Physically programmed vegan leather emulating the mechanical and sensory characteristics of animal leather from once-discarded gluten

This work presents an eco-friendly vegan leather created from once-discarded plant-based gluten protein and refined through a carefully designed physical processing strategy. By reorganizing the intrinsic disulfide-bond-rich protein network through heat and pressure, we transform raw gluten into a material that mimics the tactile feel, flexibility, and mechanical performance of natural animal leather—while remaining fully biodegradable and sustainably produced.

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As featured in:



See Jeyoung Park,
Dongyeop X. Oh *et al.*,
Mater. Horiz., 2026, **13**, 233.