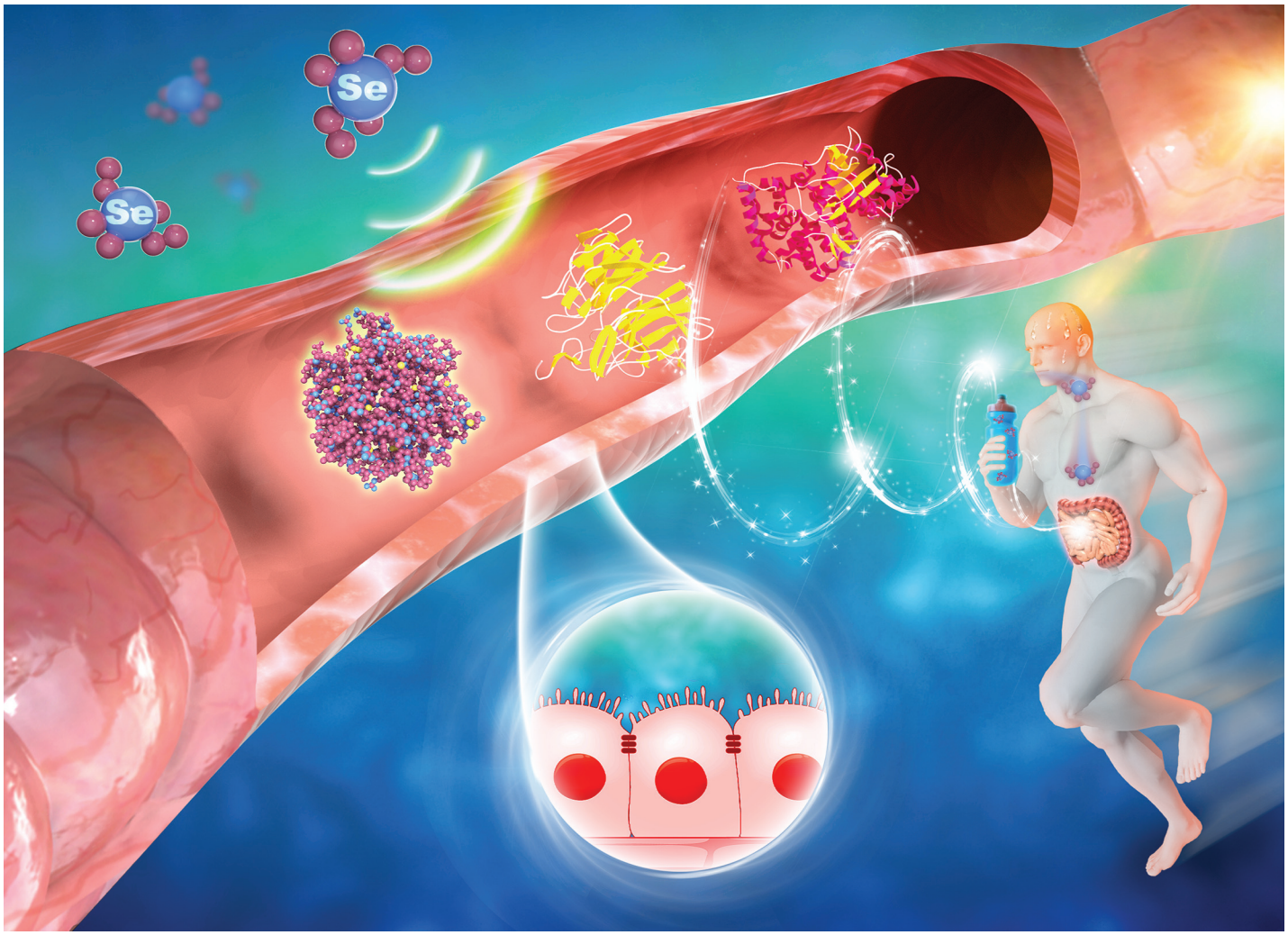

Showcasing research from Professor He Li's laboratory, School of Food and Health, Beijing Technology and Business University, Beijing, China.

Selenium-enriched peptides identified from selenium-enriched soybean protein hydrolysate: protective effects against heat damage in Caco-2 cells

In our investigation, selenium-enriched soy peptides (SePPs) were purified, yielding five distinct fractions. Fraction F3 exhibited superior antioxidant and anti-inflammatory attributes. Two prominent peptides, ESeCQIQKL (Sep-1) and SELRSPKSeC (Sep-2), identified within F3, mitigated heat stress-induced damages in Caco-2 cell models, notably oxidative stress and inflammation. Their protective mechanism involved modulation of critical proteins like Nrf2, Keap1, and NLRP3. Molecular studies demonstrated Sep-1's higher affinity towards Keap1. This research underscores the potential of Sep-1 and Sep-2 in dietary supplement formulations for heat-related ailment prevention.

As featured in:

See He Li, Xinqi Liu *et al.*, *Food Funct.*, 2023, **14**, 7882.

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