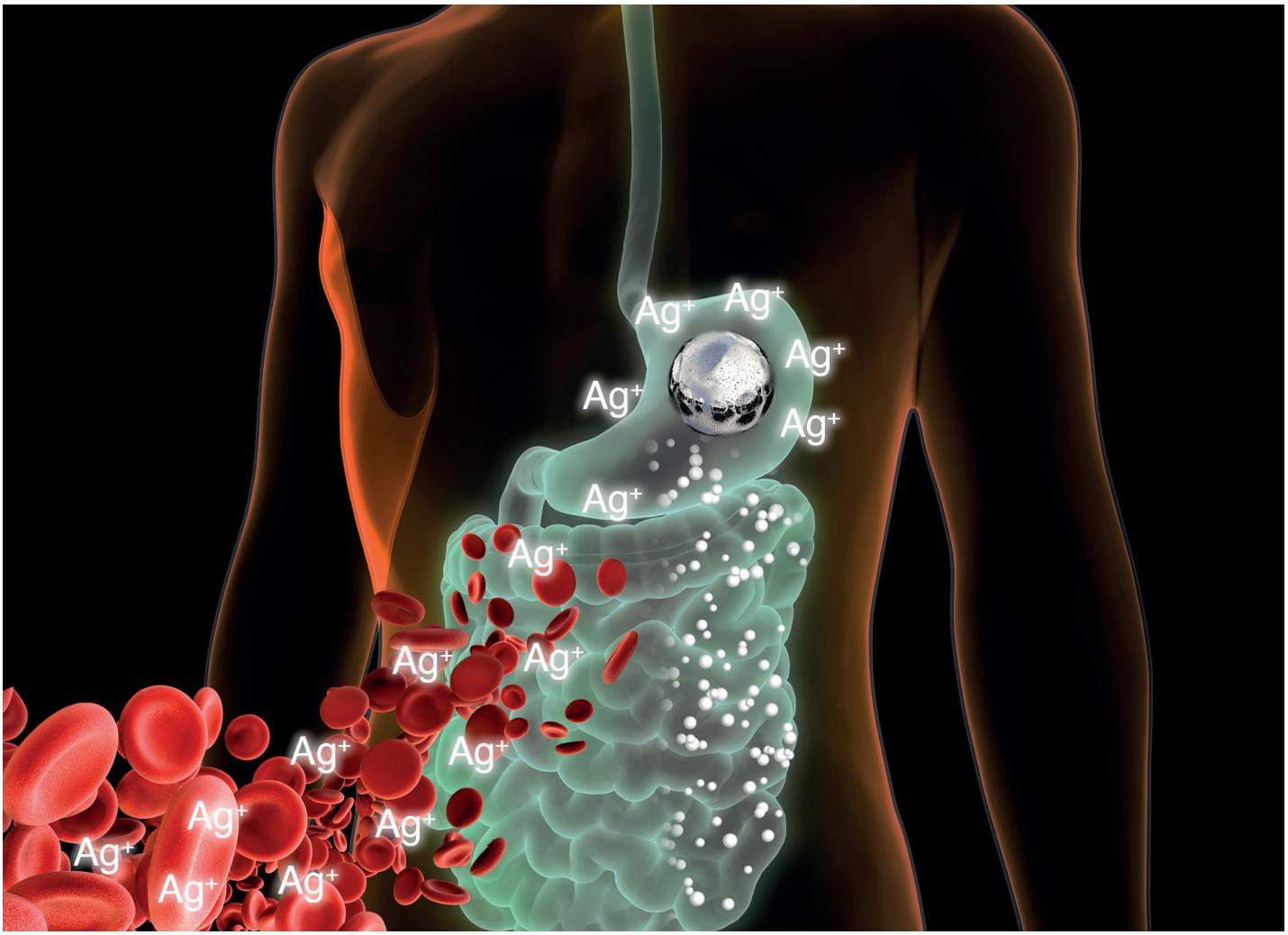
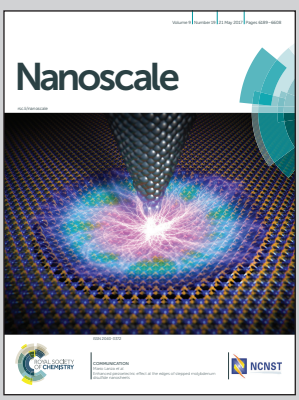


Showcasing research from the Nanoregulatory Laboratory of Drug Discovery and Development Department, Italian Institute of Technology, Genoa, Italy.

Dissolution test for risk assessment of nanoparticles: a pilot study

Human ingestion of silver nanoparticles is simulated by an *in vitro* digestive assay under dynamic conditions. Nanoparticles quite completely dissolve in ionic soluble complexes and smaller nanostructures, which remain bound in the intestinal environment following the excretion pathway of faeces (typical of in bulk material). The test quantifies few percentages of bioavailable ionic species that enter the systemic circulation through the blood. These predicted amounts were validated by *in vivo* pharmacokinetics. The work describes the biotransformation of silver nanoparticles in the digestive tract and experimentally demonstrates the read-across principle between nanoforms and the (non-nano) parental form.

As featured in:



See Stefania Sabella *et al.*, *Nanoscale*, 2017, **9**, 6315.

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