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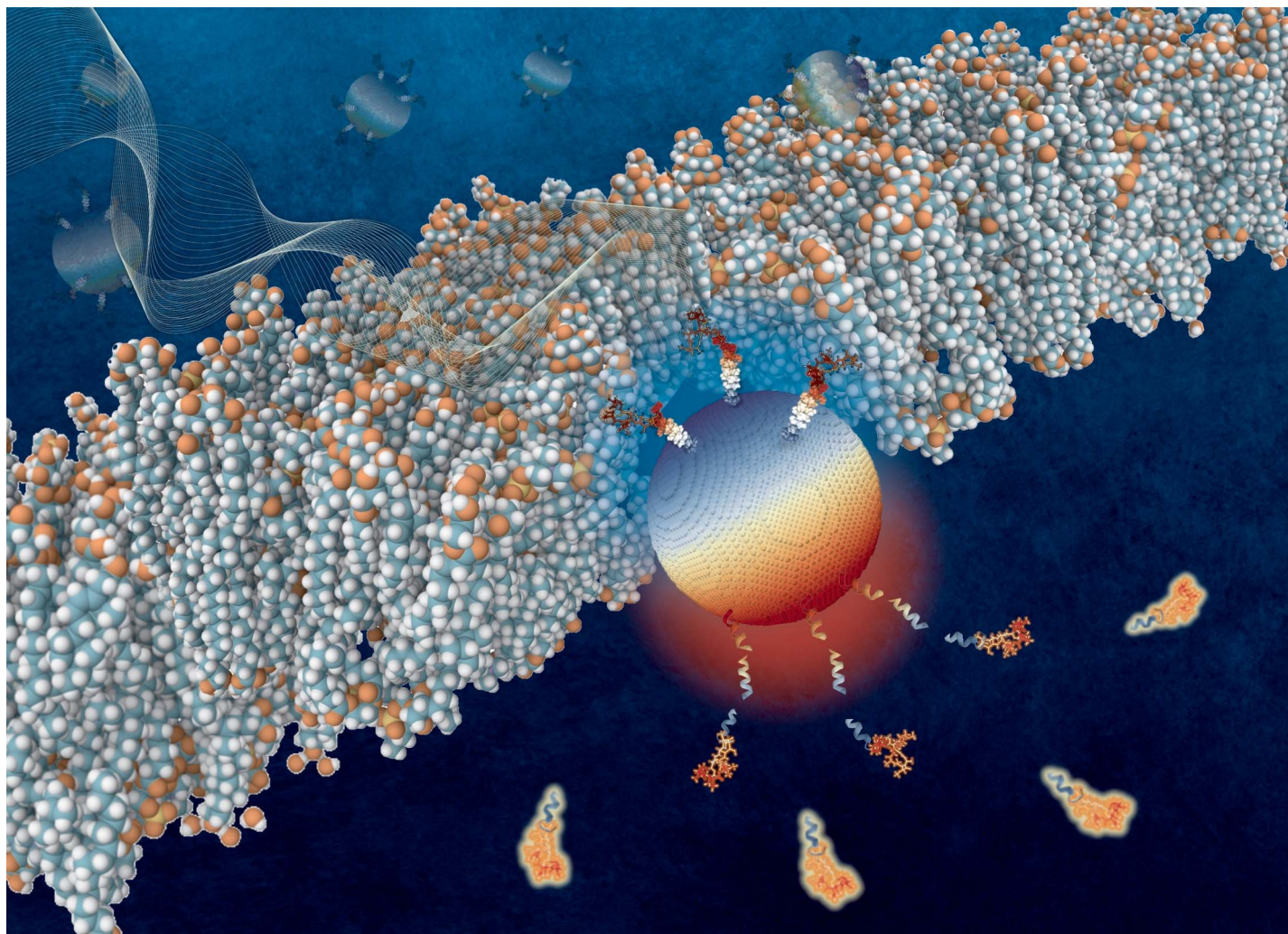
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Showcasing research from the Electromagnetic Fields for Health (EMF4Health) group, Laboratory of Bioelectromagnetism “Emanuele Biondi” of CNR-IEIT – DEIB Politecnico di Milano, Milano, Italy.

Exploring magnetoelectric nanoparticles for advanced nano-electroporation and drug delivery in interventional cardiology

This work investigates the feasibility of magnetoelectric nanoparticles (MENPs) as magnetic field-mediated nanoscale electroporation and drug release agents. The research employs computational methods to study bioelectric phenomena at the interface between MENPs and biological tissues, when subjected to static and alternating magnetic fields, deriving electrical potential at the MENP surface and nanoparticle–drug bond charge displacement. This approach opens unique paths for wireless treatments in delicate medical fields such as interventional cardiology.

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As featured in:



See G. Suarato *et al.*, *Nanoscale Adv.*, 2025, **7**, 5978.