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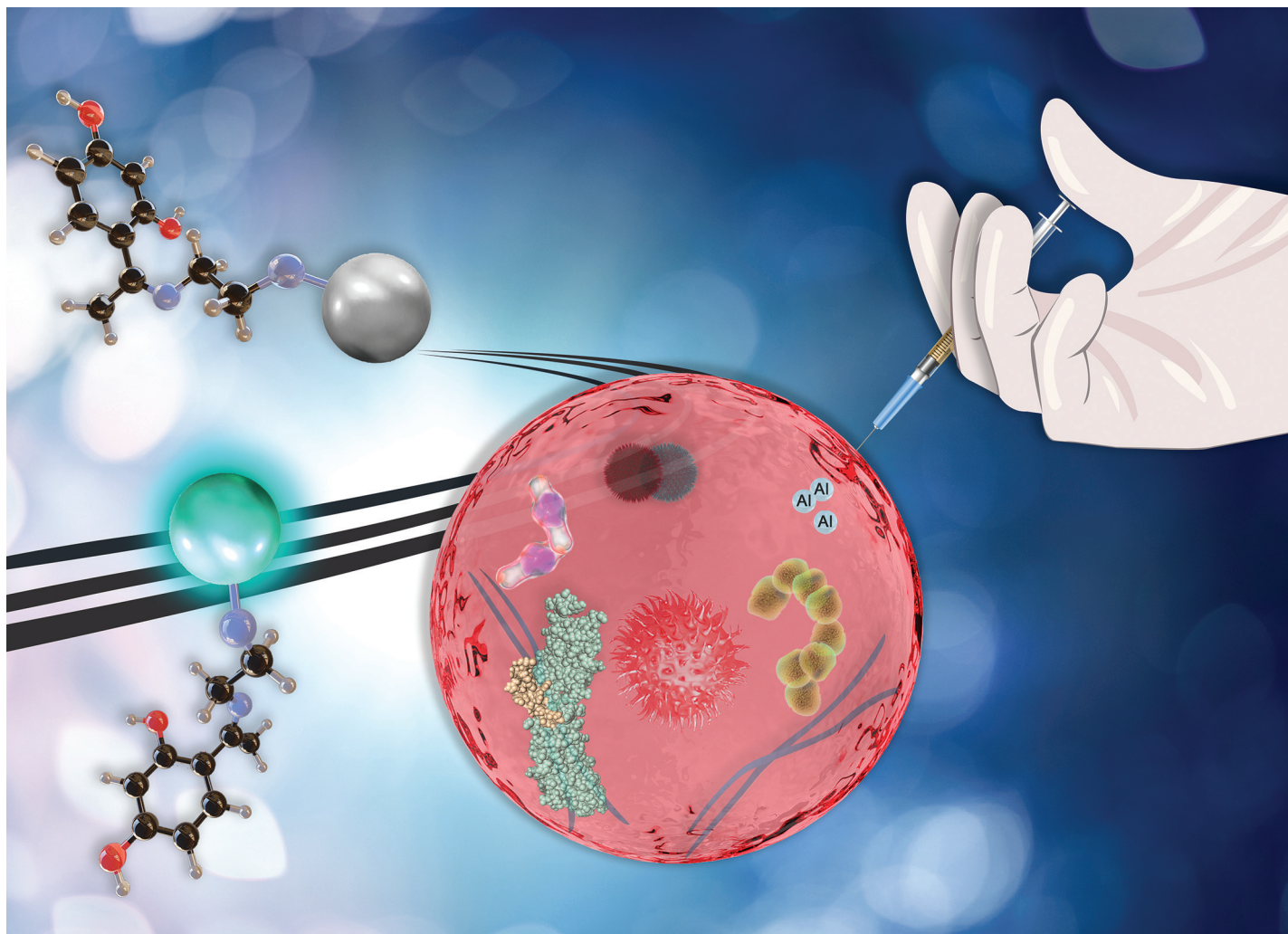
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Showcasing research from Professor Apurba Lal Koner's laboratory, Department of Chemistry, Indian Institute of Science Education and Research (IISERB) Bhopal, Bhopal, Madhya Pradesh, India.

Trivalent metal ion sensor enabled bioimaging and quantification of vaccine-deposited Al^{3+} in lysosomes

Rhodamine appended acetophenone and benzaldehyde derivatives have been utilized for the detection of trivalent metal ions in aqueous media. In solution, the synthesized probes exhibited a 'turn-on' colorimetric and fluorometric response upon complexation with trivalent metal ions. Exclusive localization of the biocompatible probes at the lysosomal compartment favored the quantification of deposited Al^{3+} released by Hepatitis B vaccines. These findings show their efficiency for near-future *in vivo* applications.

As featured in:



See Apurba Lal Koner *et al.*, *Analyst*, 2023, **148**, 2425.