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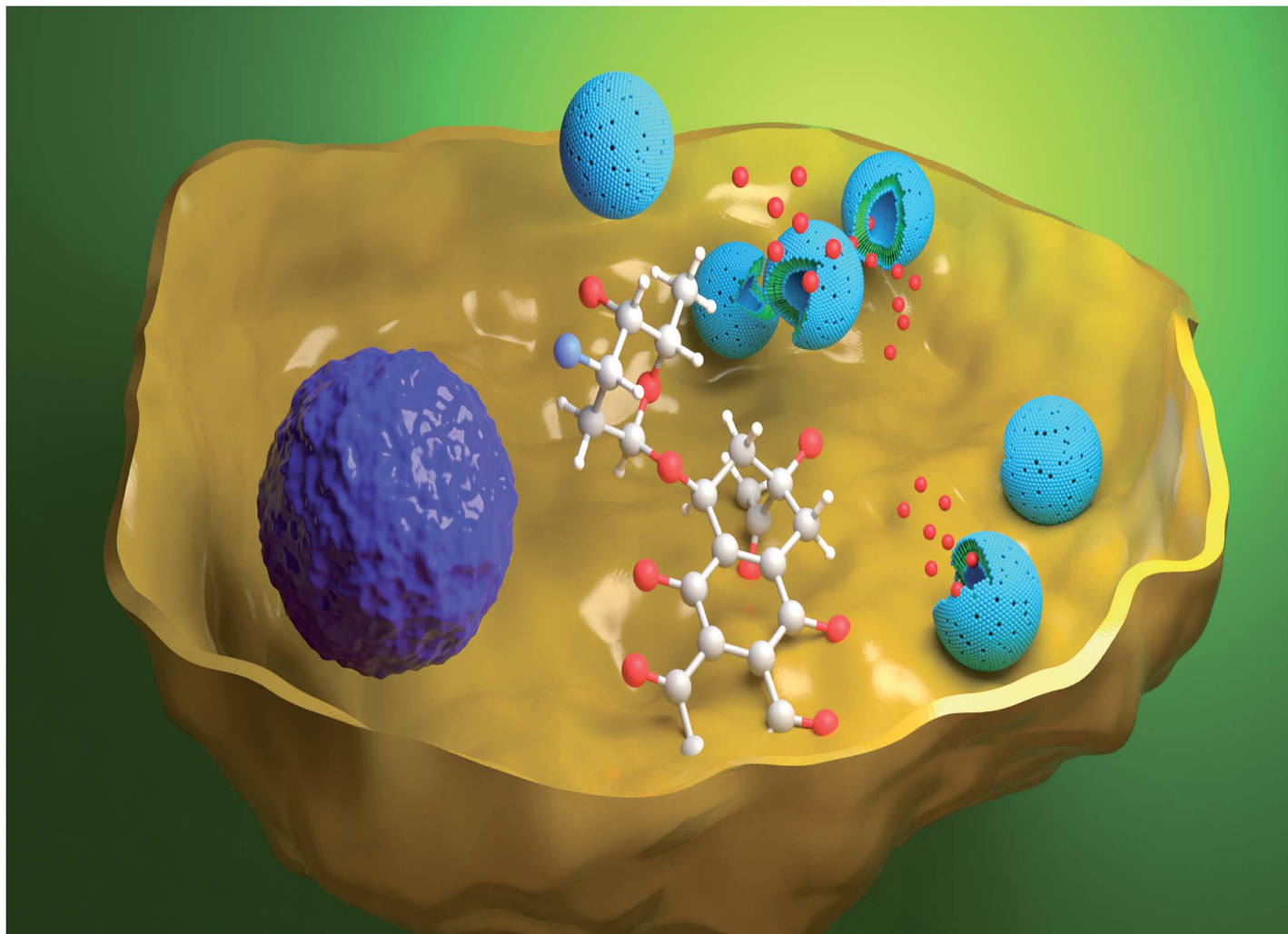


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Showcasing research from Professor Swathi Sudhakar's laboratory, Department of Applied Mechanics & Biomedical Engineering, Indian Institute of Technology Madras, Chennai, Tamil Nadu, India.

Doxorubicin loaded thermostable nanoarchaeosomes: a next-generation drug carrier for breast cancer therapeutics

Breast cancer, a leading cause of cancer death among women worldwide, is reported to have a poor prognosis due to the toxic side effects associated with high doses of chemotherapy. Liposomal drug encapsulation has shown clinical success in enhancing the tolerability of chemotherapy, but it has limitations including lack of colloidal stability, reduced drug efficiency, and difficulties in storage conditions. We have developed highly stable nanovesicles (nanoarchaeosomes) composed of natural ether lipids extracted from archaea. Our results confirm the increased drug release potential and anticancer efficacy of nanoarchaeosomes, which could be a potential next-generation carrier for anticancer treatments.

As featured in:



See Swathi Sudhakar *et al.*,
Nanoscale Adv., 2024, 6, 2026.