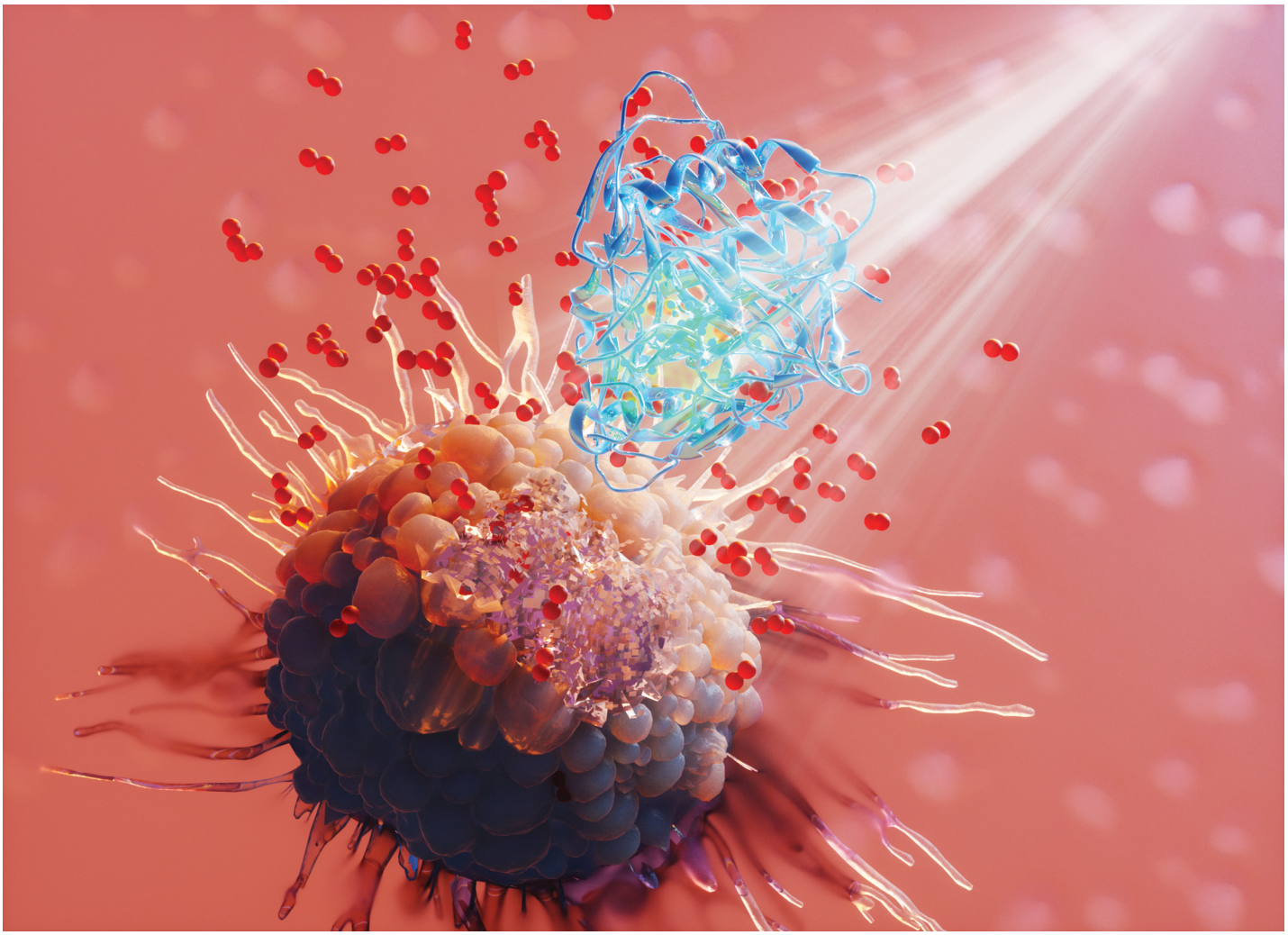
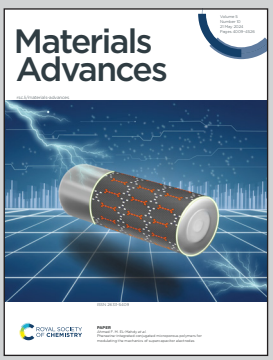


Showcasing research from Professor Sébastien Clément's laboratory, ICGM, Univ Montpellier, CNRS, ENSCM, Montpellier, France and Professor Jean-Yves Winum's laboratory, IBMM, Univ Montpellier, CNRS, ENSCM, Montpellier, France.

Thiochromenocarbazole imide-based photosensitizers decorated with carbonic anhydrase inhibitors for the targeted treatment of hypoxic tumours

Photodynamic therapy (PDT) is promising for cancer treatment due to its low invasiveness and toxicity. However, oxygen levels in tumours affect its effectiveness, especially in hypoxic regions. Thiochromenocarbazole imide (TCI) photosensitizers with carbonic anhydrase inhibitors (CAi) were developed to address this challenge. TCIs with coumarin and sulfocoumarine selectively inhibited tumour-associated hCA IX and hCA XII, enhancing PDT efficiency. Biological assays showed minimal dark toxicity and strong PDT effects, suggesting potential for effective cancer therapy.

As featured in:



See Jean-Yves Winum, Sébastien Clément *et al.*, *Mater. Adv.*, 2024, **5**, 4172.

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