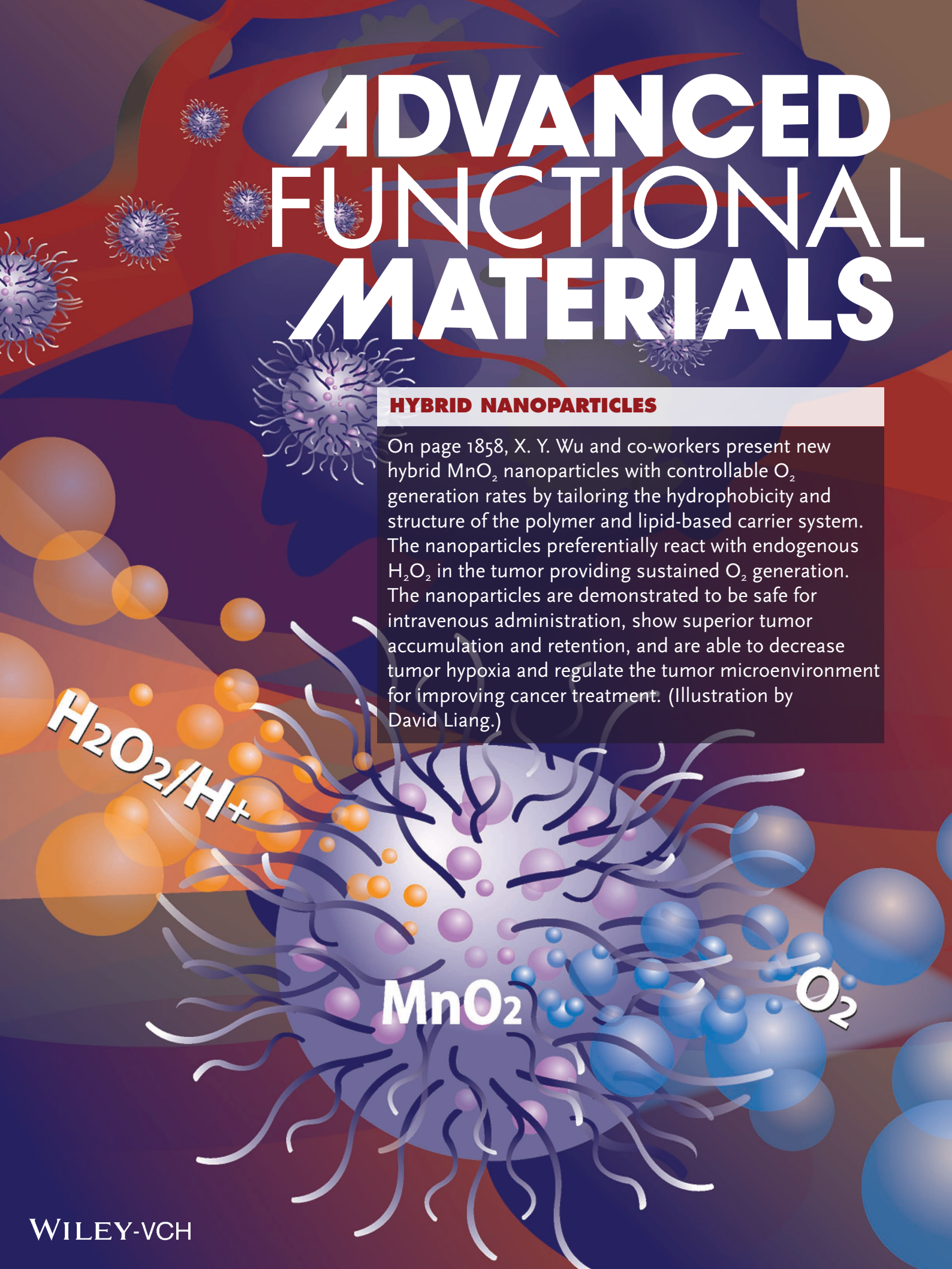
ADVANCED FUNCTIONAL MATERIALS



HYBRID NANOPARTICLES

On page 1858, X. Y. Wu and co-workers present new hybrid MnO_2 nanoparticles with controllable O_2 generation rates by tailoring the hydrophobicity and structure of the polymer and lipid-based carrier system. The nanoparticles preferentially react with endogenous H_2O_2 in the tumor providing sustained O_2 generation. The nanoparticles are demonstrated to be safe for intravenous administration, show superior tumor accumulation and retention, and are able to decrease tumor hypoxia and regulate the tumor microenvironment for improving cancer treatment. (Illustration by David Liang.)

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