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Key Lab for Biomedical Effects of Nanomaterials and Nanosafety

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Unexpected Applications of Cationic Biomaterials

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Inflammation plays an important role in responding to danger signals arising from damage to our body and in restoring homeostasis. Controlling the inflammatory response is a major strategy in managing diseases such as cancer, autoimmunity, and wound healing. While conventional drug therapies are the norm in tackling inflammation, strategies, which reduce inflammation by removing the pro-inflammatory factors. For instance, the scavenging approach may be applied to inflammatory diseases such as rheumatoid arthritis, psoriasis, multiple sclerosis and systemic lupus erythematosus, which are increasingly linked to inappropriate and ch •A&æ pp

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Kam W. Leong is the Samuel Y. Sheng Professor of Biomedical Engineering at Columbia University, where he focuses on three major research directions: 1) Nonviral gene editing *in vivo*; 2) Biomaterials-assisted modulation of inflammation; 3) Human-tissue chips for disease modeling and drug screening. He has published >500 manuscripts with an h-index of 130 and citations ~65,000, and holds more than 60 issued patents. He is the recipient of the Founder's Award of the Society for Biomaterials, Editor-in-Chief of *Biomaterials*, and a member of the National Academy of Inventors, the National Academy of Engineering, and the National Academy of Medicine.