

A nanogel-based treatment for lupus

1 March 2013

Systemic lupus erythematosus (SLE) is disease in which the immune system mistakenly attacks healthy tissues, resulting in inflammation and tissue damage. Current treatments are focused on suppression of the immune system, but these therapies can leave patients vulnerable to infection.

In this issue of the [Journal of Clinical Investigation](#), Tarek Fahmy and colleagues at Yale University report the development of a nanogel-based delivery system that targets an immunosuppressive drug (mycophenolic acid) directly to tissues associated with immune cells. A nanogel is composed of a polymer containing pores that can be loaded with [drug compounds](#).

Fahmy and colleagues tested the mycophenolic acid-loaded nanogel in a mouse model of lupus. Mice treated with the nanogel lived longer than untreated mice or mice treated with mycophenolic acid alone. Additionally, the onset of kidney damage, a common complication of lupus, was delayed in nanogel-treated mice.

These studies suggest that nanogel-based therapies may be useful in the treatment of SLE.

More information: Nanogel-based delivery of mycophenolic acid ameliorates systemic lupus erythematosus, *J Clin Invest*.
[doi:10.1172/JCI65907](https://doi.org/10.1172/JCI65907)

Provided by Journal of Clinical Investigation

APA citation: A nanogel-based treatment for lupus (2013, March 1) retrieved 19 August 2022 from <https://medicalxpress.com/news/2013-03-nanogel-based-treatment-lupus.html>

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