management of lupus. Although none of these drugs has been as thoroughly studied as cyclophosphamide, there is no evidence to suggest that any of them approaches the efficacy observed with cyclophosphamide. The anti-
malarial hydroxychloroquine has come to assume a promi-
inent role in the therapy of most lupus patients, albeit with some concern as to whether it can ever be safely dis-
continued.9 There is a large clinical experience with low-
dose, daily azathoprine and, because of its more reassuring 
record of safety, many physicians continue to use this drug 
instead of cyclophosphamide. There is much less clinical 
experience with drugs such as low dose, weekly metho-
trexate10 or cyclosporin,11 but available evidence would 
seem to suggest a role for these drugs in moderately active 
disease.

Improvements in the therapy of lupus will require 
continued investments in clinical trials of the disease. 
Among the more promising interventions in immediate 
prospect are new nucleoside analogues that have a 
promising effect on immune function,12 androgenic 
steroids,13 and biological products.14 It seems reasonable 
to assume these may have a clinical impact in lupus therapy 
in the very near future. However, perhaps of far greater 
importance, are possible therapeutic approaches that 
would correct the fundamental immune abnormalities 
responsible for lupus. In particular, the induction of 
immune tolerance to autoantigens, as has been attempted 
in studies of patients with rheumatoid arthritis15 or 
multiple sclerosis,16 would seem to be a highly 
worthwhile subject for future clinical investigation. Moreover, it is 
not too premature to begin consideration of reconstitution 
of the immune system by bone marrow transplantation17 or, 
ultimately, selective gene therapy. Basic and clinical 
advances have begun the search for candidate genes 
associated with autoimmunity,18-20 but considerably more 
work will be required before clinical protocols for gene 
therapy of the disease can be developed.

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Antoni Van LEUWENHOEK (1632–1723)

Antoni Van LEUWENHOEK, a draper and a lens 
grinder in Holland, was one of the most remarkable 
amateurs of science the world has ever known. He 
described the fauna and flora of a world that was invisible 
to all but a few and the science of microbiology was 
born. He was not the first to refine the use of the 
magnifying glass or to use a microscope, but he was the 
first to use it most effectively. He was able to magnify up to 
200 magnifications.

He had a half a century of correspondence with the 
English Medical Society, all written in Dutch, but later 
translated into Latin or into English. He was elected to 
the Society of 1680. As new awards came to him he 
acknowledged one from the University of Louvain: “My 
work which I have done for many a long year was 
not pursued in order to gain praise but chiefly from a 
craving after knowledge.”

Among his studies he demonstrated striped voluntary 
muscle and the crystals of uric acid and a variety of micro-
organisms. He made no effort to correlate disease with 
his findings.

He is commemorated on stamps of the Netherlands and 
Transkei.