## **REVIEW ARTICLE**

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## Challenges of Sarcoidosis and Its Management

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ARCOIDOSIS IS AN INFLAMMATORY, MULTISYSTEMIC DISEASE OF UNKNOWN cause with a wide range of clinical manifestations. The disorder can affect virtually any organ in the body — predominantly the lungs, lymphatic system, skin, or eyes or a combination of these sites — and is characterized by the formation of noncaseating granulomas. The first description of sarcoidosis is attributed to Jonathan Hutchinson, a surgeon and dermatologist practicing in London in the late 1800s, who identified patients with unusual skin lesions. The systemic manifestations of the disease were recognized in the decades around the end of the 19th century. Despite the efforts of several generations of researchers, our understanding of the disease mechanisms and general epidemiology of sarcoidosis remains limited.¹ The clinical presentation of sarcoidosis depends on the intensity and duration of the inflammation and the organs involved. It is thought that a dysregulated immune response against certain environmental antigens results in sustained granulomatous inflammation and failure to clear the offending antigens.¹,²

The prevalence and presentation of sarcoidosis are variable. The triggering antigen is likely to vary according to race or ethnic group, geographic location, and individual genetic background.<sup>1</sup> The prognosis is also highly variable, ranging from spontaneous resolution to chronic inflammation complicated by fibrosis or associated irreversible organ failure or both. Sarcoidosis adversely affects the lives of patients and their families. Disease severity, coexisting conditions, and quality of life are influenced by social status, race or ethnic group, sex, and income.<sup>3,4</sup> The cause remains elusive, and pathognomonic markers and disease-specific treatments are lacking. Given the unpredictable clinical course and uncertainty about adequate treatment approaches, the management of sarcoidosis remains challenging.<sup>5,6</sup> A recent report provides an excellent summary of current concepts concerning the epidemiology, pathogenesis, and treatment of sarcoidosis.<sup>1</sup> This review extends the discussion to consider unresolved clinical and research challenges and related opportunities to improve the care of patients with sarcoidosis.