Infection, Tumors and Autoimmunity

Report on the 11th Dresden Symposium on Autoantibodies held in Dresden on September 1-4, 2013
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AUTOANTIGENS, AUTOANTIBODIES, AUTOIMMUNITY
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Preface

Autoimmunity is a complex network and spectrum of immune responses against self ranging from naturally occurring autoreactivity at one end of the spectrum which, in most cases, are harmless or even beneficial, to pathological (induced) autoimmunity that may be harmful by leading to the development of autoimmune diseases. Therefore, autoimmunity may play different roles in healthy and diseased subjects. For improvement of the diagnostics and therapeutics as well as prediction and prevention of autoimmune diseases, it is important to investigate all aspects of these very complex and multifactorial pathological processes. In this regard, infections may have protective or enhancing capabilities in the development of autoimmune diseases. Neutrophil extracellular trap (NET) formation is a novel mechanism that may be involved in autoimmune induction triggered by certain infections. Besides the role of accelerated NETosis, other novel aspects of autoimmune pathogenesis such as defects of intracellular nucleases, agonistic effects of anti-receptor antibodies, the role of protective natural antibodies, vitamin D, adjuvants, memory plasma cells and the innate immune system can be found in this volume. Another important area of autoimmunity is the relevance of tumor associated autoantibodies (TAAB). Regardless of their pathogenic role, TAAB may be important markers in the risk assessment or prediction of tumor development.

A major challenge for the improvement of immune diagnostics is the optimization and standardization of autoantibody determinations combined with standardized evaluation studies. On the backdrop of trying to understand the clinical relevance of autoantibodies in patients, the search for and description of new autoantibody specificities continues. Novel autoantibody biomarkers in tumors, idiopathic myopathies, multiple sclerosis, kidney diseases and rheumatoid arthritis will be presented along with new concepts and novel assays that may further improve the diagnostics of autoimmune and neoplastic diseases.

Hopefully, the data and informations described and discussed in this volume will stimulate novel concepts and research on autoimmune pathogenesis as well as the improvement of immune diagnostics and therapy.

The editors