

Editorial

Molecular Biology-Pathophysiology of Inflammation and Autoinflammation

It is a great pleasure and an honor as well for me to present to the readers of this Journal a Special Issue dedicated to a set of topics in the area of molecular biology-pathophysiology of inflammation and autoinflammation.

Inflammation, a rather cardinal concept in biology and not only in medicine, representing the most common reaction to a variety of stimuli has recently been widened as to cover conditions related to immune mechanisms without any evidence of involvement of antibodies or antigen specific cells (auto-inflammation) as well. Although seemingly rare, genetically controlled and encompassing a variety of diverse entities, it turns to be an ideal model of tissue reaction with a lot of secrets hiding behind very primitive concepts. Understanding the pathogenesis of entities, (=EA=FC=EC=EC=E1) such as Familial Mediterranean Fever, is essential not only for reliable diagnosis, counseling and treatment but also as a first step in understanding better the concept of inflammation and the other so-called auto-inflammatory conditions.

The pathophysiology of inflammation and autoinflammation is thoroughly covered in several chapters of this issue. Distinguished co-authors from several centers around the world have contributed to detailing these concepts from the clinical, pharmacological, molecular and developmental view.

Boumpas and Kourbeti (Greece) discuss the concept of biological treatment strategies in autoimmunity. Dourakis and Alexopoulou (Greece) unfold the secrets of clinical implications of the genetic heterogeneity of hepatitis, a very special infection with a wide impact on public health. Grateau (France) presents the serious and fascinating problem of amyloidoses that are currently becoming more and more difficult to understand. Gumucio (Michigan-US) deals with the emerging molecular details of inflammatory processes occurring at least in part via the interaction of several intracellular mediators and pyrin, the protein involved in pathogenesis of Familial Mediterranean Fever. Tunca and Ozdogan (Turkey) review the concept of molecular and genetic characteristics of hereditary autoinflammatory diseases. Gul (Turkey) reviews the similarities between the hereditary autoinflammatory diseases and an acquired entity of auto-inflammatory type, namely Bechet's disease. Karageuzyan (Armenia) proposes his model on oxidative stress in the pathogenesis of several disease states, hereditary or acquired. Samarkos and Vaiopoulos (Greece) discuss the literature data on the causative role and induction of autoimmunity. Cattan (France) reviews the relations between vasculitides and Familial Mediterranean Fever, an as-yet unsolved question; he also deals with the putative selection advantages, if any, of Mediterranean Fever gene. Sarkisian (Armenia) is reporting on the genotype-phenotype correlation(s) of pyrin mutations in Armenia, a hot area for Mediterranean Fever. Manna (Italy) reviews the pharmacology of the most popular (and most efficient) agent for treating Mediterranean Fever, colchicin. Germentis and his group (Greece) comment on the versatility of complement framework, a strategic function in innate immunity.

I am much obliged to all authors and their collaborators for the time and efforts they devoted for this production. I wish to thank Bentham Publishers for honouring me with their decision and invitation to act as a Guest Editor in this Special Issue. I wish to thank people in my Department for allowing me enough time for the editing duties. I am sure that this volume will prove valuable contribution to a better understanding of the complex and diverse field of the pathophysiology of inflammation and auto-inflammation.

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