CALL FOR PAPERS

Autoimmunity Highlights
Special Issue on
Genetics, environment and infections in autoimmunity: emerging data and new perspectives

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Call for Papers
More than 80 autoimmune diseases have been identified so far. Their clinical features have been described in great detail but their aetiology still remain unclear. However, many factors responsible for the development of autoimmunity, and indeed autoimmune disease, have been thoroughly studied in patients with autoimmune diseases and animals with experimental autoimmune diseases. Amongst the studied factors, genetics and environmental triggers of autoimmunity have received special attention. Environmental agents responsible for breaking immunological tolerance are subdivided in infectious and non-infectious factors.

Early findings in twins and family members of affected individuals have led to the understanding that autoimmune diseases develop in genetically prone individuals. Various genes have been considered responsible for conferring susceptibility to autoimmunity. These genes appear to differ from one disease to another. More recently, genome wide association studies have assist efforts to better understand the full spectrum of HLA and non-HLA genetic make-up of autoimmunity.

Infections (in particular in viruses, bacteria and other infectious pathogens) have been considered the most prominent triggers of autoimmunity. Several mechanisms have been studied in an attempt to explain how an infection can promote the development of autoimmunity and the maintenance of immune-mediated attack of the host. Several infectious agents have been linked with autoimmune diseases. Some of those are repeatedly described as potential makers of autoimmunity while some others are specifically linked with an autoimmune disease but do not appear to play any role in other self-perpetuating inflammation and destruction of the host. Lessons to be learned have been given by experimental models of autoimmune diseases. However, at times the influence and the extent by which an infectious agent is involved in an experimental autoimmune disease does not reflect the impact in the human disease.

Less study has the effect of non-infectious environmental triggers of autoimmunity. More recently a wealth of data has been provided in relation to this topic. Data has started to
emerge regarding the influence of diet components, obesity, changes in our lifestyle, air pollution, smoking, vaccination and others in the development of autoimmune diseases. It is also clear that some genetic and environmental factors confer protection from the induction of perpetuating auto-reactive responses.

It has become apparent that an orchestrated attack of our immune system which leads in the induction of organ and non-organ specific autoimmune diseases is the net outcome of several genetic, infectious and environmental factors. These factors are operated in a synchronous manner in dysregulated individuals who lack proper regulatory cell populations.

In this special issue, we seek for contributions (review papers and original articles) that (i) discuss the impact of genetic factors in autoimmunity; (ii) describe current evidence, molecular, epidemiological, or immunological of a link between environmental or infectious and autoimmune diseases; (iii) describe potential mechanisms responsible for the induction of autoimmune involving genetic, environmental and infectious factors; (iv) discuss the evidence linking certain infectious agents to autoimmune diseases in humans and experimental diseases.

**Important Dates**
- Deadline of submission: 30 April 2017
- First round of notification: 30 May 2017
- Final decision notification: 15 June 2017

**Submission Instructions**
For submission instructions please visit the journal’s online submission system at [https://www.editorialmanager.com/aihl](https://www.editorialmanager.com/aihl), have a look at the journal page at [www.springer.com/13317](http://www.springer.com/13317) or contact Prof. Dimitrios P. Bogdanos at dimitrios.bogdanos@yahoo.com.